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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the
Commission's Own Motion to
Determine Whether Pacific Gas and
Electric Company and PG&E
Corporation's Organizational Culture
and Governance Prioritize Safety.

Investigation 15-08-019

**ADMINISTRATIVE LAW JUDGE'S RULING PROVIDING
THE FINAL NORTHSTAR REPORT UPDATE AND THE
SAFETY POLICY DIVISION STAFF REPORT**

This Ruling provides the service list with (1) a copy of the *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture Final Update (December 27, 2021)* prepared by NorthStar Consulting Group (NorthStar) (Attachment A); and (2) a copy of the Commission's Safety Policy Division (SPD) Staff Report (Attachment B) describing a plan for tracking designated recommendations from NorthStar reports. Parties may file comments on these two reports. Opening comments of not more than 15 pages, must be filed and served not later than October 7, 2022. Reply comments of not more than 10 pages, must be filed and served not later than October 21, 2022.

On August 27, 2015, the Commission initiated this Order Instituting Investigation to determine whether Pacific Gas and Electric Company's (PG&E's) and PG&E Corporation's (PG&E Corp's.) organizational culture and governance prioritize safety. In Phase 1 of this investigation, the Commission directed its Safety and Enforcement Division (SED) with the assistance of a consultant to

evaluate PG&E's and PG&E Corp.'s organizational culture, governance, policies, practices, and accountability metrics, among others. Subsequently, NorthStar was selected to perform the assessment of PG&E's safety culture on behalf of SED and began its work in 2016.

Since 2016 NorthStar has issued three reports on PG&E's and PG&E Corp.'s safety culture. In May 2017, NorthStar issued its *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, which investigated whether PG&E's organizational culture and governance prioritize safety and adequately direct resources to promote accountability and achieve safety goals and standards. In March 2019, NorthStar submitted its *First Update Report* to the 2017 safety culture assessment. These two reports were distributed to the service list by the May 8, 2017 *Scoping Memo and Ruling of Assigned Commissioner* and the March 29, 2019 *E-Mail Ruling Distributing NorthStar Report Update – Pacific Gas & Electric Company Safety Culture*, respectively. The final report, NorthStar Update, attached to this ruling, provides the final assessment of the implementation status of all NorthStar recommendations. Also attached to this ruling is the SPD Staff Report, which provides a plan for tracking designated recommendations from NorthStar's reports. The Commission will consider the reports appended to this ruling in a final decision.

IT IS RULED that:

1. Parties may file comments on the final NorthStar Update Report and the Commission's Safety Policy Division Staff Report.

2. Opening comments of not more than 15 pages must be filed and served not later than October 7, 2022. Reply comments of not more than 10 pages must be filed and served not later than October 21, 2022.

Dated September 16, 2022, at San Francisco, California.

/s/ NILGUN ATAMTURK

Nilgun Atamturk
Administrative Law Judge

ATTACHMENT A

**ASSESSMENT OF
PACIFIC GAS AND ELECTRIC CORPORATION AND
PACIFIC GAS AND ELECTRIC COMPANY'S
SAFETY CULTURE**

FINAL UPDATE

**PREPARED FOR
CALIFORNIA PUBLIC UTILITIES COMMISSION
DECEMBER 27, 2021**

FINAL REPORT



NORTHSTAR CONSULTING GROUP

MANAGEMENT CONSULTANTS

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CHAPTER I: EXECUTIVE SUMMARY

A. BACKGROUND

On August 27, 2015, the California Public Utilities Commission (CPUC or Commission) opened an investigation to determine whether Pacific Gas and Electric Company's (PG&E) and PG&E Corporation's (PG&E Corp.) organizational culture and governance prioritize safety and adequately direct resources to promote accountability and achieve safety goals and standards (I.15-08-019 Order Instituting Investigation to Determine Whether PG&E and PG&E Corporation's Organizational Culture and Governance Prioritize Safety (Safety Culture Investigation or OII)). During the first phase of the proceeding, the Commission directed the Commission's Safety and Enforcement Division (SED) to evaluate PG&E's and PG&E Corp.'s organizational culture, governance, policies, practices, and accountability metrics in relation to PG&E's record of operations, including its record of safety incidents, and to produce a report on the issues and questions contained in the OII.

NorthStar Consulting Group, Inc. (NorthStar) was selected to perform the assessment. The review began in April 2016. NorthStar's contract expires at the end of 2021. During the course of its engagement, NorthStar provided the Commission with the following:

- Its initial assessment of PG&E's safety culture as set forth in NorthStar's May 8, 2017, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture Final Report*. During the course of this investigation, NorthStar reviewed the responses to nearly 900 information requests and conducted more than 250 interviews. A number of the interviews were field visits which resulted in discussions with more than one employee.
- NorthStar's First Update Report issued March 29, 2019. This report focused on PG&E's implementation of six key NorthStar recommendations selected by the Commission. This review involved an additional 60 plus interviews and roughly 190 information requests.
- Ongoing monitoring of PG&E's safety culture activities and governance changes, and support on other matters as requested.
- A final assessment of the implementation status of all NorthStar recommendations (this report). As part of its ongoing monitoring and final implementation assessment, NorthStar conducted roughly 360 additional interviews or attended internal meetings, and issued over 400 information requests.

NorthStar's final assessment was conducted during the COVID-19 pandemic. As a result, interviews and meetings were conducted virtually.

B. SCOPE AND OBJECTIVES

As part of its final assessment, NorthStar was asked to determine the implementation status of the 65 recommendations for PG&E identified in NorthStar's May 8, 2017, Report, and the 22 additional recommendations identified in NorthStar's March 9, 2019, Update Report. NorthStar was not asked to re-assess PG&E's safety culture or opine on the significant changes and events that have occurred over the five year period of NorthStar's engagement. However, to provide some perspective NorthStar highlights some of the more significant events:

- Northern California has suffered from catastrophic wildfires, many of which were caused by PG&E equipment.
- PG&E was required to retain a Federal Monitor as a result of the San Bruno incident. The Federal Monitor's initial scope largely focused on compliance and ethics and gas operations, but has shifted to PG&E's wildfire mitigation efforts as a result of the catastrophic wildfires and ongoing issues identified by the Federal Monitor.
- The Governor's Office assigned PG&E an Operational Observer that continues to monitor PG&E's activities.
- On January 29, 2019, PG&E filed for Chapter 11 bankruptcy protection. As a condition of PG&E's emergence from bankruptcy, the Commission was required to approve PG&E's bankruptcy Plan of Reorganization (POR). The POR included a proposal to regionalize PG&E's operations. On May 28, 2020, the Commission approved, with conditions, PG&E's proposed reorganization plan.
- PG&E has had three different Boards of Directors since NorthStar began its engagement. At the time of NorthStar's initial review, the Directors were largely those that had been in place since San Bruno – with minor changes as Directors retired. In early 2019, the hedge fund Blue Mountain Capital Group LLP prepared to enter into a proxy fight to oust the existing PG&E Board. PG&E ultimately reached an agreement with another group of shareholders in April 2019, which resulted in a largely reconstituted Board including a number of financial restructuring experts. Following emergence from bankruptcy, PG&E again acquired a new board.
- There has been constant turnover at the most senior levels since NorthStar began its review. Tony Early served as CEO when NorthStar began its engagement. He retired in March 2017, and was replaced with Geisha Williams. Geisha Williams left PG&E in January 2019, and John Simon – PG&E EVP and General Counsel was appointed CEO on an interim basis. In April 2019, former Tennessee Valley Authority CEO Bill Johnson was appointed CEO. He was replaced with one of PG&E's Board members – Bill Smith – on an interim basis following PG&E's emergence from bankruptcy in April 2020. Effective January 4, 2021, Patti Poppe took over as PG&E Corp. CEO. She has since replaced a large portion of PG&E's management team with new executives.

- PG&E's safety organization has been in a similar state of flux since 2016. There have been seven Chief Safety Officers (CSO) during the course of NorthStar's field work. Since that time Francisco Benavides left PG&E and was replaced with an Interim CSO.
- PG&E has modified its integrated planning process and begun implementation of lean operating principles.

C. IMPLEMENTATION STATUS

The following provides a list of all NorthStar recommendations and NorthStar's assessment as to PG&E's implementation status. Detailed discussions are provided in Chapters III-XII of this report. The implementation status was classified as follows, based on NorthStar's assessment:

- Implemented – PG&E implemented NorthStar's recommendation.
- Partially Implemented – PG&E implemented some, but not all elements of NorthStar's recommendation.
- Not Implemented – PG&E either did not implement, or largely did not implement NorthStar's recommendation.
- In process – PG&E is continuing to implement the recommendation.
- Undetermined – 1) requested information was incomplete or was provided too late for NorthStar to make an assessment; or, 2) current status could not be determined due to organizational or operational changes.
- No Longer Applicable – Meetings referred to in the recommendation were eliminated.

Exhibit I-1 NorthStar's Assessment of PG&E's Implementation

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
NorthStar's May 8, 2017, Safety Culture Assessment Report			
Executive Summary			
F1	Development of an implementation plan for NorthStar's recommendations, to be submitted to the CPUC. PG&E should also provide periodic updates on its implementation status. This information shall be used by SED to ensure timely and effective implementation of NorthStar's recommendations.	Implemented	XII
F2	The need for clear definition of supervisory requirements, including an assessment of workload requirements, ongoing field monitoring efforts and time requirements, and associated staffing levels.	Not Implemented	V
F3	Expedited completion of the safety leadership training for crew leads and foremen.	Implemented	VIII

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
F4	Development of a comprehensive safety strategy, with associated timelines/ deliverables, resource requirements and budgets, personnel qualifications, clear delineation of roles and responsibilities; action plans, assignment of responsibility for initiatives, and associated metrics to assess effectiveness. This should be followed with the identification of necessary corporate and LOB safety resource requirements and development of an appropriate organization structure. Also shared with SED.	Partially Implemented	III
F5	Greater coordination among the LOBs and with Corporate Safety to increase consistency, improve efficiencies, minimize operational gaps, and facilitate sharing of best practices.	Not Implemented	V
Governance and Strategy			
III-1	Add safety to the list of qualifications used in selecting Independent Directors to the Board(s) of PG&E Corp. and PG&E. Periodically revisit the qualifications matrix and requirements for Independent Director as the industry and requirements change. Add Independent Directors to the Board who have experience with safety, perhaps in another industry such as aviation.	Implemented	III
III-2	Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process (discussed in Chapter VI: Budgeting and Spending) should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.	Not Implemented	VI
III-3	Develop a comprehensive safety plan (by the end of 2017) that incorporates LOB and Corporate Safety activities to eliminate duplication, prevent gaps and appropriately prioritize expenditures. The plan should address culture, employee health and wellness, contractor safety, employee safety and public safety. Solicit input from throughout the organization, particularly the field, in the development of the plan. The environmental function was removed for the Safety, Health & Environment organization. It should have its own plan. The plan should be updated annually for at least two years and then at least every three years thereafter, with quarterly/annual monitoring of progress relative to the plan. The comprehensive plan should include all safety plans and programs of the Company, except for specific asset-related safety plans (such as asset management plans, leak survey programs or vegetation management) that should continue to be the responsibility of the various LOBs. The plan should be approved by the NOS Committee and the Boards, and endorsed and supported by executive management and the CPUC. The plan must be clearly communicated throughout the organization.	Partially Implemented	III
III-4	Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.	Not Implemented	VI
III-5	Internal Audit should play a more active role in auditing safety controls, programs and processes.	Implemented	III
Organization			
IV-1	Appoint a Corporate Safety Officer who has both operations and professional safety experience. NorthStar is aware that Mr. Higgins replaced Mr. Bell as Corporate Safety Officer on March 1, 2017. While Mr. Higgins has operating experience with National Grid, PG&E and other utilities, he does not have professional safety training or experience. Mr. Higgins should undertake a professional training program that will provide him with the necessary skills as soon as possible.	Partially Implemented	IV

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
IV-2	The Corporate Safety Officer should report to the COO of the Utility and to the NOS Committee of the Board in the same manner that the head of Internal Audit reports to the Audit Committee of the Board in most public companies. (It is NorthStar's understanding that this has been implemented.)	Implemented	IV
IV-3	Examine workload levels, potential morale issues and other demands to understand and mitigate the reasons for the high turn-over at the Sr. Director, Safety and Health position and throughout the Corporate Safety organization.	Undetermined	IV
IV-4	Following the development of the safety strategy, review the structure, reporting relationships and staffing levels of the Corporate Safety organization to ensure PG&E has the resources necessary for strategy execution and proper coordination with/support for the LOBs.	Undetermined	IV
IV-5	Improve the safety credentials of personnel in PG&E's safety functions and organizations.	Partially Implemented	IV
IV-6	Simplify and clarify the roles and responsibilities of the Corporate Field Safety Specialists (FSS) vis-à-vis the LOB FSS to eliminate duplication, and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.	Not Implemented	V
IV-7	Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure they are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.	Not Implemented	V
Field Operations			
V-1	Improve processes used to evaluate and translate best practices and techniques from one LOB organizational unit to others. Focus LOB FSS roles and responsibilities on integrating best practices among all LOBs, facilitating the implementation of corporate safety initiatives, and improving safety practices and awareness across all organizational units.	Not Implemented	V
V-2	NorthStar does not believe the FSS can be effective even in significantly great numbers given the geographic challenges associated with PG&E's service territory and the diverse job requirements. A more effective use of the FSS would be to have them focus on and support the first-line supervisors – foremen and crew leads.	Implemented	V
V-3	Perform a broad reassessment of all safety programs and initiatives to: evaluate overall effectiveness and make improvements, and eliminate scope overlap (e.g., the Corrective Action Program (CAP) vs. the Safety and Environmental Management System (SEMS) follow-up responsibility).	Not Implemented	V
V-4	Reevaluate staffing, roles, responsibilities and work requirements to increase Supervisor's time in the field supervising crews.	Not Implemented	V
V-5	Increase the training requirements for LOB FSS. Existing OSHA training is somewhat generic and not sufficiently related to PG&E's public and occupational hazards.	Not Implemented	V
V-6	Reevaluate the travel requirements placed on employees to reduce the overall mileage driven. Accelerate the use of mobile technology and electronic information exchange. PG&E employees drive a significant number of miles per year and are frequently called upon to support workload at great distances from their normal assigned locations.	Partially Implemented	V
Budgeting and Spending			
VI-1	Develop a method of separating "safety" expenditures from routine reliability and integrity expenditures. This may occur as part of the CPUC's Risk Assessment Mitigation Phase (RAMP) process.	Partially Implemented	VI
VI-2	Develop business case support and a record of management approval for safety initiatives in accordance with PG&E's Project Approval Procedure.	Not Implemented	VI
VI-3	Develop a method for weighting the value of management initiated safety programs comparable to the Risk Informed Budget Allocation (RIBA) but focused on management and training.	Not Implemented	VI

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
VI-4	Move forward with planned implementation of the Power Generation IPP Portfolio Planning and Management (PPM) system for all operational LOBs.	Implemented	VI
VI-5	Continue efforts to better link IPP Session D to the Session 1 and 2 processes.	In Process	VI
Compensation and Performance Management			
VII-1	None of the KPIs currently considered for use in measuring safety culture should be included as an incentive measure (i.e., included as part of the Short-Term Incentive Program (STIP) or the Long-Term Incentive Program (LTIP). This will only serve to provide artificially inflated results or drive unintended consequences. Most of the proposed metrics are based on either employee surveys or near hit/CAP reporting. Incentives tied to employee submittals will ensure targets are met and may minimize the value of the submittals (for example, a sudden influx of not particularly meaningful submittals prior to the end of a reporting period). Similarly, an incentive tied to survey results will drive positive reporting rather than true results.	Implemented	VII
VII-2	Continue to track metrics eliminated from STIP as part of the Business Performance Review (BPR) process to allow trending.	Implemented	VII
VII-3	Increase the weighting of safety in the LTIP to more closely align safety performance and executive compensation.	Implemented	VII
VII-4	Reevaluate the appropriateness of the Earning from Operations component of the STIP due to its lack of transparency and the ongoing adjustments for Items Impacting Comparability.	Implemented	VII
VII-5	Revisit all STIP metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar. Set multi-year targets to drive performance. Include a contractor safety metric in the STIP. Following the development of the enterprise safety plan, PG&E should develop STIP and BPR metrics that measure plan implementation/ adoption and the effectiveness of the various initiatives identified in the plan. PG&E should continue monitor and report lagging OSHA metrics (i.e., DART, LWD, MVIs, fatalities) as part of the BPR process.	Partially Implemented	VII
VII-6	Develop a more robust and comprehensive set of BPR metrics addressing all aspects of safety such as public, employee and contractor safety; facility, infrastructure/asset and cyber security; environmental safety; public awareness; and, safety culture.	Implemented	VII
VII-7	Improve the internal sharing of best practices. Increase the level of involvement by different groups and employee levels. As an example, NorthStar performed a management audit of National Grid Gas' New York operations a few years ago for the New York Public Service Commission. The utility had a fairly robust process improvement program. NorthStar's report describing the process is available on the New York State Department of Public Service's website.	Not Implemented	VII
Training			
VIII-1	Accelerate crew foremen safety leadership training.	Implemented	VIII
VIII-2	Profile training participants so that individuals in office-based organizations generally do not receive field-oriented safety training ahead of field organizations.	Implemented	VIII
VIII-3	Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.	Partially Implemented	VIII
VIII-4	Conduct mandatory refresher training for Electric T&D, Gas Operations and Power Generation field resources on fundamental safety-related topics such as confined space, safety at heights and personal protective equipment.	Implemented	VIII
VIII-5	Profile employees to receive Human Performance training.	Implemented	VIII

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
VIII-6	Develop a monthly operator qualifications (OQ) status report for the Senior Vice President of Gas Operations and the President of Gas Operations. Include such information as number and type of examinations conducted, pass fail rates, number of qualifications expiring (in 90, 60, 30 and 5 days), the number of OQ scans conducted and the results.	Implemented	VIII
VIII-7	Conduct a review of 2014 OQs to determine if contract employees were working on PG&Es system with other expired OQs. Conduct additional re-inspections as necessary.	Implemented	VIII
VIII-8	Perform a feasibility study of PG&E training and testing of contractor employees for OQs. The study should consider the volume of students, the cost charged per unit, the availability of resources at PG&E and analysis of advantages and disadvantages.	Implemented	VIII
VIII-9	Power Generation should continue to update its apprentice programs.	Partially Implemented	VIII
VIII-10	Power Generation should work with the Academy to improve the timeliness of training completion.	Implemented	VIII
VIII-11	Power Generation should develop a refresher training program, similar to that of Electric T&D and Gas Operations.	Implemented	VIII
Communications			
IX-1	Develop and implement a strategic communications plan that does not overwhelm employees with too much information, but effectively addresses the issues identified in the January 2015 Monitor 360 Study, the 2016 Premier Survey (and PG&E's narrative analysis.)	Implemented	IX
IX-2	Develop a consistent basis for measuring, tracking and trending employee attitudes regarding safety culture.	Implemented	IX
IX-3	Develop and implement programs similar to Electric T&D's Reach Every Employee program in Power Generation and Gas Operations.	Implemented	IX
IX-4	Assess the effectiveness of the 2016 Speak Up Culture campaign, particularly among field resources.	Implemented	IX
Safety Reporting/Corrective Action			
X-1	Evaluate the adequacy of the information captured by various incident tracking systems (SEMS, CAP) to ensure it is sufficient to understand the causes of incidents, perform trending analyses and other analytics, and provide timely information. Improve CAP, near hit and incident tracking and reporting systems to increase the clarity of the information, ensure the appropriate level of causal evaluation has been assigned and that all required actions have been taken before an item is closed.	Implemented	X
X-2	Track the costs and relative safety benefits of the CAP and Near Hit Programs. Increase efficiencies or modify programs as warranted.	Implemented	X
X-3	Develop an evaluation program to maximize the benefits from CAP and Near Hit Reporting.	Implemented	X
X-4	Develop an evaluation program for Serious Incident Investigations to include periodic audits of the processes by Internal Audit.	Implemented	X
X-5	Improve documentation of corrective actions for incidents and near hits subject to a Work Group Evaluation (WGE), as well as for incidents subject to an Apparent Cause Evaluation (ACE) and Root Cause Evaluation (RCE).	Implemented	X
X-6	Report and track incidents in a consistent manner such that appropriate information may be shared across the enterprise. Develop a central repository for this information which should include an executive summary, corrective actions taken, any materials developed and the effectiveness evaluations.	Undetermined	X
X-7	Develop a protocol involving concise, targeted, timely communications to notify other crews, work locations and LOBs of incidents or corrective actions that are applicable to that group.	Implemented	X

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
X-8	Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S). Incorporate the specified improvements.	Implemented	X
X-9	Compare all LOB Causal Evaluation Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the WGE process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE. The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan. Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.	Partially Implemented	X
Contractor Safety			
XI-1	Corporate Contractor Safety should select the projects for review rather than the LOBs, and conduct “surprise” field visits to assess contractor safety practices.	Implemented	XI
XI-2	Determine whether it is feasible to update the language in contracts to remove all references to the contractor or consultant being “solely responsible” for performing work in a safe manner.	Implemented	XI
XI-3	Develop formal criteria to close contractor serious safety incident action items in ISN.	Implemented	XI
XI-4	Facilitate the sharing of best practices and lessons learned regarding the LOBs’ implementation of the Contractor Safety Standard, addressing both organizational and procedural issues.	Implemented	XI
XI-5	Update LOB contractor safety procedures to clarify responsibilities and reflect current organizations and processes. Include guidelines regarding the frequency of field observations.	Implemented	XI
XI-6	Institute a contractor on-boarding test in Power Generation.	Implemented	XI
NorthStar’s March 29, 2019, Update Report			
U-1	Institute version control over, and include dates for the implementation plans, completion narratives, sustainability plans and for the IA sign-off process.	Partially Implemented	XII
U-2	Increase the rigor and formality over target completion date changes, status changes and scope changes associated with the implementation of NorthStar’s recommendations. Review the implementation status of all recommendations to ensure all elements of the recommendations have been addressed or PG&E’s modifications have been documented and justified.	Partially Implemented	XII
U-3	Develop processes to ensure the sustainability of the implementation of NorthStar’s recommendations.	Implemented	XII
U-4	In addition to the status of the implementation of NorthStar’s recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.	Implemented	XII
U-5	Report to the Commission on a quarterly basis the status of the One PG&E Operational Health & Safety (OH&S) Plan and associated metrics (in process).	Implemented	XII
U-6	Increase CSO oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.	Partially Implemented	III
U-7	Communicate results of Internal Audit (IA) safety-related audits and LOB management response to Safety, Health and Enterprise CAP (reporting to the CSO).	Implemented	III
U-8	Include the Generation Safety Lead in routine meetings between Electric Operations and Gas Operations and Safety & Health regarding the implementation of OH&S plan.	No Longer Applicable	III

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
U-9	<p>Conduct an annual (or biennial) blue sky strategic safety planning exercise to concentrate on the changing environment, potential risks and threats. The exercise should force a comprehensive analysis of all safety-related opportunities and threats and a formal, proactive action plan. The planning exercise should:</p> <ul style="list-style-type: none"> • Consider the environmental, financial, political, technological, infrastructure, public, workforce and other risks and safety advancements. • Include executives, management and potentially the BODs. • Be facilitated by an outside expert. • Cover ALL potential contributors to safety. 	Implemented	III
U-10	Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.	Not Implemented	V
U-11	Commit to a target level of dedicated time in supervisors calendars each week for time in the field; guidance will remain flexible for each LOB to take into consideration the different job functions and geographic work considerations.	Implemented	V
U-12	Transfer administrative tasks that can be done by office-based staff, such as scheduling of work, training and paperwork review, from the Supervisor to the office-based staff.	Not Implemented	V
U-13	Formalize Gas, Electric, and Power Generation management expectations for supervisors spending time in the field and communicate techniques for how to reduce impediments in each LOB thereby increasing time in the field.	Implemented	V
U-14	Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized, as discussed in PG&E's January 8, 2018 Testimony (p. App 2A-4/Adobe p. 129/521).	Not Implemented	V
U-15	Reduce travel requirements for field personnel and supervisors who are frequently assigned to work or attend meetings outside their normal work locations.	Partially Implemented	V
U-16	Continue to provide Crew Lead Safety Leadership training courses for employees that move into Crew Lead positions. Automatically include Crew Lead Safety Leadership training in the training profiles for new crew leads.	Implemented	VIII
U-17	On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.	Partially Implemented	VIII
U-18	Report any changes in the Board of Director (BOD) skills matrix, and any changes to the composition of the BOD to the CPUC.	Implemented	III
U-19	Continue to update the BOD on safety and other significant industry issues.	Implemented	III

Rec. No.	Recommendation	Implementation Status	Discussed in Chapter
U-20	<p>Encourage BOD members to inquire and challenge PG&E executives to ensure a robust governance process. Revise PG&E Corp.'s Governance Guidelines to include expectations for Directors. As an example, see the Sempra Energy Corporate Governance Guidelines. Among other items, the Sempra Energy Guidelines include the following:</p> <ul style="list-style-type: none"> • Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management. • Develop and maintain a broad understanding of the corporation's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures.... • Balance prompt action with thorough deliberations, prioritize matter requiring attention, gather sufficient information, engage in open discussion, invite differing views, evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making. 	Implemented	III
U-21	Implement the recommendations identified in the outside vendor's communications audit.	Partially Implemented	IX
U-22	Revise the communications plan as necessary to address any safety and health issues that are identified in recent and on-going Premier surveys and associated analyses	Not Implemented	IX

CHAPTER II: BACKGROUND

A. PG&E SAFETY CULTURE REVIEWS - 2016 TO PRESENT

Order Instituting Investigation I.15-08-019 - Phase 1

On August 27, 2015, the California Public Utilities Commission (CPUC or Commission) opened an Order Instituting Investigation (OII) to determine whether Pacific Gas and Electric Company's (PG&E) and PG&E Corporation's (PG&E Corp.) organizational culture and governance prioritize safety and adequately direct resources to promote accountability and achieve safety goals and standards.¹ During the first phase of the proceeding, the Commission directed its Safety and Enforcement Division (SED) to evaluate PG&E's and PG&E Corp.'s organizational culture, governance, policies, practices, and accountability metrics in relation to PG&E's record of operations, including its record of safety incidents. SED was also directed to produce a report addressing the issues and questions contained in the OII.

SED selected NorthStar Consulting Group, Inc. (NorthStar) to perform the Phase 1 assessment. The review began in April 2016, with detailed fieldwork conducted from May through December 2016. NorthStar completed its Phase 1 Final Report on May 8, 2017. The Final Report resulted in five recommendations for the Commission and 65 recommendations for PG&E. **Exhibit II-1** shows the number of recommendations grouped by chapter in the Final Report, consistent with NorthStar's scope of work (SOW):

Exhibit II-1
NorthStar Recommendations – May 8, 2017

Chapter		Number of Recs. for:	
		PG&E	CPUC
I	Executive Summary - which highlighted the critical recommendations.	5	5 (3 critical)
II	Background	None	
III	Strategy and Governance	5	
IV	Organization	7	
V	Field Operations	6	
VI	Budgeting and Spending	5	
VII	Compensation and Performance Management	7	
VIII	Recruiting and Training	11	
IX	Communications	4	
X	Safety Reporting/Corrective Action	9	
XI	Contractor Safety	6	
Total		65	5

Source: *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture Final Report*, prepared for the California Public Utilities Commission, May 8, 2017, NorthStar Consulting Group.

¹ I.15-08-019 Order Instituting Investigation to Determine Whether PG&E and PG&E Corporation's Organizational Culture and Governance Prioritize Safety (Safety Culture Investigation or OII).

NorthStar's May 8, 2017, recommendations for PG&E are detailed in **Exhibit II-2**. NorthStar considered five recommendations to be particularly critical and included them in the Executive Summary of its Safety Culture Assessment Report. For tracking purposes, PG&E labeled these as F-1 through F-5.

Exhibit II-2
May 8, 2017, Final Report – Recommendations for PG&E

NorthStar Recommendations	
Critical Recommendations (included in the Executive Summary)	
F-1	Development of an implementation plan for NorthStar's recommendations, to be submitted to the CPUC. PG&E should also provide periodic updates on its implementation status. This information shall be used by SED to ensure timely and effective implementation of NorthStar's recommendations.
F-2	The need for clear definition of supervisory requirements, including an assessment of workload requirements, ongoing field monitoring efforts and time requirements, and associated staffing levels.
F-3	Expedited completion of the safety leadership training for crew leads and foremen.
F-4	Development of a comprehensive safety strategy, with associated timelines/ deliverables, resource requirements and budgets, personnel qualifications, clear delineation of roles and responsibilities; action plans, assignment of responsibility for initiatives, and associated metrics to assess effectiveness. This should be followed with the identification of necessary corporate and LOB safety resource requirements and development of an appropriate organization structure. Also shared with SED.
F-5	Greater coordination among the LOBs and with Corporate Safety to increase consistency, improve efficiencies, minimize operational gaps, and facilitate sharing of best practices.
Strategy and Governance	
III-1	Add safety to the list of qualifications used in selecting Independent Directors to the Board(s) of PG&E Corp. and PG&E. Periodically revisit the qualifications matrix and requirements for Independent Director as the industry and requirements change. Add Independent Directors to the Board who have experience with safety, perhaps in another industry such as aviation.
III-2	Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process (discussed in Chapter VI: Budgeting and Spending) should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.
III-3	Develop a comprehensive safety plan (by the end of 2017) that incorporates LOB and Corporate Safety activities to eliminate duplication, prevent gaps and appropriately prioritize expenditures. The plan should address culture, employee health and wellness, contractor safety, employee safety and public safety. Solicit input from throughout the organization, particularly the field, in the development of the plan. The environmental function was removed for the Safety, Health & Environment organization. It should have its own plan. The plan should be updated annually for at least two years and then at least every three years thereafter, with quarterly/annual monitoring of progress relative to the plan. The comprehensive plan should include all safety plans and programs of the Company, except for specific asset-related safety plans (such as asset management plans, leak survey programs or vegetation management) that should continue to be the responsibility of the various LOBs. The plan should be approved by the NOS Committee and the Boards, and endorsed and supported by executive management and the CPUC. The plan must be clearly communicated throughout the organization.
III-4	Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.
III-5	Internal Audit should play a more active role in auditing safety controls, programs and processes.
Organization	
IV-1	Appoint a Corporate Safety Officer who has both operations and professional safety experience. NorthStar is aware that Mr. Higgins replaced Mr. Bell as Corporate Safety Officer on March 1, 2017. While Mr. Higgins has operating experience with National Grid, PG&E and other utilities, he does not have professional safety training or experience. Mr. Higgins should undertake a professional training program that will provide him with the necessary skills as soon as possible.
IV-2	The Corporate Safety Officer should report to the COO of the Utility and to the NOS Committee of the Board in the same manner that the head of Internal Audit reports to the Audit Committee of the Board in most public companies. (It is NorthStar's understanding that this has been implemented.)

NorthStar Recommendations	
IV-3	Examine workload levels, potential morale issues and other demands to understand and mitigate the reasons for the high turn-over at the Sr. Director, Safety and Health position and throughout the Corporate Safety organization.
IV-4	Following the development of the safety strategy, review the structure, reporting relationships and staffing levels of the Corporate Safety organization to ensure PG&E has the resources necessary for strategy execution and proper coordination with/support for the LOBs.
IV-5	Improve the safety credentials of personnel in PG&E's safety functions and organizations.
IV-6	Simplify and clarify the roles and responsibilities of the Corporate Field Safety Specialists (FSS) vis-à-vis the LOB FSS to eliminate duplication, and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.
IV-7	Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure they are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.
Field Operations	
V-1	Improve processes used to evaluate and translate best practices and techniques from one LOB organizational unit to others. Focus LOB FSS roles and responsibilities on integrating best practices among all LOBs, facilitating the implementation of corporate safety initiatives, and improving safety practices and awareness across all organizational units.
V-2	NorthStar does not believe the FSS can be effective even in significantly great numbers given the geographic challenges associated with PG&E's service territory and the diverse job requirements. A more effective use of the FSS would be to have them focus on and support the first-line supervisors – foremen and crew leads.
V-3	Perform a broad reassessment of all safety programs and initiatives to: evaluate overall effectiveness and make improvements, and eliminate scope overlap (e.g., the Corrective Action Program (CAP) vs. the Safety and Environmental Management System (SEMS) follow-up responsibility).
V-4	Reevaluate staffing, roles, responsibilities and work requirements to increase Supervisor's time in the field supervising crews.
V-5	Increase the training requirements for LOB FSS. Existing OSHA training is somewhat generic and not sufficiently related to PG&E's public and occupational hazards.
V-6	Reevaluate the travel requirements placed on employees to reduce the overall mileage driven. Accelerate the use of mobile technology and electronic information exchange. PG&E employees drive a significant number of miles per year and are frequently called upon to support workload at great distances from their normal assigned locations.
Budgeting and Spending	
VI-1	Develop a method of separating "safety" expenditures from routine reliability and integrity expenditures. This may occur as part of the CPUC's Risk Assessment Mitigation Phase (RAMP) process.
VI-2	Develop business case support and a record of management approval for safety initiatives in accordance with PG&E's Project Approval Procedure.
VI-3	Develop a method for weighting the value of management-initiated safety programs comparable to the Risk Informed Budget Allocation (RIBA) but focused on management and training.
VI-4	Move forward with planned implementation of the Power Generation IPP Portfolio Planning and Management (PPM) system for all operational LOBs.
VI-5	Continue efforts to better link IPP Session D to the Session 1 and 2 processes.
Compensation and Performance Management	
VII-1	None of the KPIs currently considered for use in measuring safety culture should be included as an incentive measure (i.e., included as part of the Short-Term Incentive Program (STIP) or the Long-Term Incentive Program (LTIP)). This will only serve to provide artificially inflated results or drive unintended consequences. Most of the proposed metrics are based on either employee surveys or near hit/CAP reporting. Incentives tied to employee submittals will ensure targets are met and may minimize the value of the submittals (for example, a sudden influx of not particularly meaningful submittals prior to the end of a reporting period). Similarly, an incentive tied to survey results will drive positive reporting rather than true results.
VII-2	Continue to track metrics eliminated from STIP as part of the Business Performance Review (BPR) process to allow trending.
VII-3	Increase the weighting of safety in the LTIP to more closely align safety performance and executive compensation.
VII-4	Reevaluate the appropriateness of the Earning from Operations component of the STIP due to its lack of transparency and the ongoing adjustments for Items Impacting Comparability.

NorthStar Recommendations	
VII-5	Revisit all STIP metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar. Set multi-year targets to drive performance. Include a contractor safety metric in the STIP. Following the development of the enterprise safety plan, PG&E should develop STIP and BPR metrics that measure plan implementation/ adoption and the effectiveness of the various initiatives identified in the plan. PG&E should continue monitor and report lagging OSHA metrics (i.e., DART, LWD, MVI, fatalities) as part of the BPR process.
VII-6	Develop a more robust and comprehensive set of BPR metrics addressing all aspects of safety such as public, employee and contractor safety; facility, infrastructure/asset and cyber security; environmental safety; public awareness; and, safety culture.
VII-7	Improve the internal sharing of best practices. Increase the level of involvement by different groups and employee levels. As an example, NorthStar performed a management audit of National Grid Gas' New York operations a few years ago for the New York Public Service Commission. The utility had a fairly robust process improvement program. NorthStar's report describing the process is available on the New York State Department of Public Service's website.
Training	
VIII-1	Accelerate crew foremen safety leadership training.
VIII-2	Profile training participants so that individuals in office-based organizations generally do not receive field-oriented safety training ahead of field organizations.
VIII-3	Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.
VIII-4	Conduct mandatory refresher training for Electric T&D, Gas Operations and Power Generation field resources on fundamental safety-related topics such as confined space, safety at heights and personal protective equipment.
VIII-5	Profile employees to receive Human Performance training.
VIII-6	Develop a monthly operator qualifications (OQ) status report for the Senior Vice President of Gas Operations and the President of Gas Operations. Include such information as number and type of examinations conducted, pass fail rates, number of qualifications expiring (in 90, 60, 30 and 5 days), the number of OQ scans conducted and the results.
VIII-7	Conduct a review of 2014 OQs to determine if contract employees were working on PG&E's system with other expired OQs. Conduct additional re-inspections as necessary.
VIII-8	Perform a feasibility study of PG&E training and testing of contractor employees for OQs. The study should consider the volume of students, the cost charged per unit, the availability of resources at PG&E and analysis of advantages and disadvantages.
VIII-9	Power Generation should continue to update its apprentice programs.
VIII-10	Power Generation should work with the Academy to improve the timeliness of training completion.
VIII-11	Power Generation should develop a refresher training program, similar to that of Electric T&D and Gas Operations.
Communications	
IX-1	Develop and implement a strategic communications plan that does not overwhelm employees with too much information, but effectively addresses the issues identified in the January 2015 Monitor 360 Study, the 2016 Premier Survey (and PG&E's narrative analysis.)
IX-2	Develop a consistent basis for measuring, tracking and trending employee attitudes regarding safety culture.
IX-3	Develop and implement programs similar to Electric T&D's Reach Every Employee program in Power Generation and Gas Operations.
IX-4	Assess the effectiveness of the 2016 Speak Up Culture campaign, particularly among field resources.
Safety Reporting/Corrective Action	
X-1	Evaluate the adequacy of the information captured by various incident tracking systems (SEMS, CAP) to ensure it is sufficient to understand the causes of incidents, perform trending analyses and other analytics, and provide timely information. Improve CAP, near hit and incident tracking and reporting systems to increase the clarity of the information, ensure the appropriate level of causal evaluation has been assigned and that all required actions have been taken before an item is closed.
X-2	Track the costs and relative safety benefits of the CAP and Near Hit Programs. Increase efficiencies or modify programs as warranted.
X-3	Develop an evaluation program to maximize the benefits from CAP and Near Hit Reporting.
X-4	Develop an evaluation program for Serious Incident Investigations to include periodic audits of the processes by Internal Audit.

NorthStar Recommendations	
X-5	Improve documentation of corrective actions for incidents and near hits subject to a Work Group Evaluation (WGE), as well as for incidents subject to an Apparent Cause Evaluation (ACE) and Root Cause Evaluation (RCE).
X-6	Report and track incidents in a consistent manner such that appropriate information may be shared across the enterprise. Develop a central repository for this information which should include an executive summary, corrective actions taken, any materials developed and the effectiveness evaluations.
X-7	Develop a protocol involving concise, targeted, timely communications to notify other crews, work locations and LOBs of incidents or corrective actions that are applicable to that group.
X-8	Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S). Incorporate the specified improvements.
X-9	Compare all LOB Causal Evaluation Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the WGE process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE. The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan. Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.
Contractor Safety	
XI-1	Corporate Contractor Safety should select the projects for review rather than the LOBs, and conduct “surprise” field visits to assess contractor safety practices.
XI-2	Determine whether it is feasible to update the language in contracts to remove all references to the contractor or consultant being “solely responsible” for performing work in a safe manner.
XI-3	Develop formal criteria to close contractor serious safety incident action items in ISN.
XI-4	Facilitate the sharing of best practices and lessons learned regarding the LOBs’ implementation of the Contractor Safety Standard, addressing both organizational and procedural issues.
XI-5	Update LOB contractor safety procedures to clarify responsibilities and reflect current organizations and processes. Include guidelines regarding the frequency of field observations.
XI-6	Institute a contractor on-boarding test in Power Generation.

Source: *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company’s Safety Culture Final Report*, prepared for the California Public Utilities Commission, NorthStar Consulting Group May 8, 2017, OII 15-08-019.

Order Instituting Investigation I.15-08-019 - Phase 2

On May 8, 2017, Assigned Commissioner Picker issued a “Scoping Memo and Ruling of Assigned Commissioner” (Scoping Memo), beginning Phase 2 of the proceeding. Attached to the Scoping Memo was NorthStar’s Final Report from Phase 1. The Scoping Memo stated that Phase 2 was intended to:

evaluate the safety reform recommendations of NorthStar which may lead to the Commission’s adoption of the recommendations in the Report, in whole or in part. This phase of the proceeding will also consider all necessary measures, including, but not limited to, a reduction of PG&E’s return on equity until any recommendations adopted by the Commission are implemented.²

On August 1, 2017, the Commission held a prehearing conference at which the parties discussed Phase 2 of the proceeding. At the prehearing conference, counsel for the Office of Ratepayer Advocates (ORA)³ and The Utility Reform Network (TURN) requested the scope of the proceeding be refined and asked for an opportunity to provide input on the disputed

² Scoping Memo and Ruling of Assigned Commissioner, Investigation 15-08-019, 5/8/2017.

³ Now the Public Advocates Offices (CalAdvocates).

issues of fact. To facilitate this evaluation, the parties were directed to file prepared testimony. On November 17, 2017, Assigned Commissioner Picker issued an “Assigned Commissioner’s Ruling Setting Scope of Testimony and Schedule” (ACR), which set forth the scope of testimony, including questions regarding the NorthStar Report.

On January 8, 2018, PG&E submitted its prepared testimony in response to the ACR (PG&E Prepared Testimony). PG&E’s implementation plan, as provided in Appendix 2-A of its Prepared Testimony, described the implementation plan for the NorthStar recommendations applicable to PG&E.

On November 29, 2018, the Commission ordered PG&E to implement NorthStar’s recommendations by July 1, 2019, and required PG&E to submit quarterly reports on its progress:⁴

The Commission adopts the recommendations for PG&E in the NorthStar Report, and directs PG&E to promptly implement those recommendations, with implementation to be completed no later than July 1, 2019. PG&E proposes to submit an annual report to SED on the implementation status. (PG&E Opening Brief at 10.) We prefer more frequent updates, and accordingly direct PG&E to submit quarterly reports to SED and to also serve those reports to the service list for this proceeding, beginning the fourth quarter of 2018. PG&E should coordinate with SED regarding the content and format of the reports.⁵

NorthStar First Update Report

In July 2018, the Commission requested that NorthStar determine the status of PG&E’s implementation of the following key NorthStar recommendations:

- F-1: Develop a plan and status updates to ensure NorthStar’s recommendations were implemented. Status updates were to be provided to SED.
- F-2: Increase field supervision.
- F-3: Expedite safety leadership training for crew leads.
- F-4: Develop a comprehensive safety strategy.
- III-1: Improve Board qualifications and involvement.
- IX-1: Communicate the comprehensive safety strategy to the PG&E workforce.

During the course of the assessment, NorthStar also endeavored to determine whether improvements to PG&E’s safety culture were evident, whether there continued to be impediments to optimized safety performance, and whether structural or organization flaws existed. NorthStar also worked with SED and PG&E to develop a template for the Quarterly Reports which would serve as an ongoing assessment tool of PG&E’s implementation.

NorthStar issued its First Update Report on March 29, 2019. The report contained 22 additional recommendations for PG&E and one additional recommendation for the Commission. These subsequent recommendations were intended to further PG&E’s implementation of NorthStar’s initial recommendations. The additional recommendations

⁴ [243614812.PDF \(ca.gov\)](#).

⁵ D.18-11-050.

for PG&E arising from NorthStar's First Update Report are provided in **Exhibit II-3**. The recommendations were given a "U" designation to indicate they were part of the Update Report.

Exhibit II-3
March 29, 2019, First Update Report - Recommendations for PG&E

Critical NorthStar Recommendation and Additional Phase 2 Update Recommendations	
F-1: Develop a plan and status updates to ensure NorthStar's recommendations were implemented. Status updates were to be provided to SED.	
U-1	Institute version control over, and include dates for the implementation plans, completion narratives, sustainability plans and for the IA sign-off process.
U-2	Increase the rigor and formality over target completion date changes, status changes and scope changes associated with the implementation of NorthStar's recommendations. Review the implementation status of all recommendations to ensure all elements of the recommendations have been addressed or PG&E's modifications have been documented and justified.
U-3	Develop processes to ensure the sustainability of the implementation of NorthStar's recommendations.
U-4	In addition to the status of the implementation of NorthStar's recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.
U-5	Report to the Commission on a quarterly basis the status of the One PG&E Operational Health & Safety (OH&S) Plan and associated metrics (in process).
F-2: Increase field supervision.	
U-10	Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.
U-11	Commit to a target level of dedicated time in supervisors calendars each week for time in the field; guidance will remain flexible for each LOB to take into consideration the different job functions and geographic work considerations.
U-12	Transfer administrative tasks that can be done by office-based staff, such as scheduling of work, training and paperwork review, from the Supervisor to the office-based staff.
U-13	Formalize Gas, Electric, and Power Generation management expectations for supervisors spending time in the field and communicate techniques for how to reduce impediments in each LOB thereby increasing time in the field.
U-14	Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized, as discussed in PG&E's January 8, 2018 Testimony (p. App 2A-4/Adobe p. 129/521).
U-15	Reduce travel requirements for field personnel and supervisors who are frequently assigned to work or attend meetings outside their normal work locations.
F-3: Expedite safety leadership training for crew lead.	
U-16	Continue to provide Crew Lead Safety Leadership training courses for employees that move into Crew Lead positions. Automatically include Crew Lead Safety Leadership training in the training profiles for new crew leads.
U-17	On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.
F-4: Develop a comprehensive safety strategy.	
U-6	Increase CSO oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.
U-7	Communicate results of Internal Audit (IA) safety-related audits and LOB management response to Safety, Health and Enterprise CAP (reporting to the CSO).
U-8	Include the Generation Safety Lead in routine meetings between Electric Operations and Gas Operations and Safety & Health regarding the implementation of OH&S plan.

Critical NorthStar Recommendation and Additional Phase 2 Update Recommendations	
U-9	<p>Conduct an annual (or biennial) blue sky strategic safety planning exercise to concentrate on the changing environment, potential risks and threats. The exercise should force a comprehensive analysis of all safety-related opportunities and threats and a formal, proactive action plan. The planning exercise should:</p> <ul style="list-style-type: none"> • Consider the environmental, financial, political, technological, infrastructure, public, workforce and other risks and safety advancements. • Include executives, management and potentially the BODs. • Be facilitated by an outside expert. • Cover ALL potential contributors to safety.
III-1: Improve Board qualifications and involvement.	
U-18	Report any changes in the Board of Director (BOD) skills matrix, and any changes to the composition of the BOD to the CPUC.
U-19	Continue to update the BOD on safety and other significant industry issues.
U-20	<p>Encourage BOD members to inquire and challenge PG&E executives to ensure a robust governance process. Revise PG&E Corp.'s Governance Guidelines to include expectations for Directors. As an example, see the Sempra Energy Corporate Governance Guidelines. Among other items, the Sempra Energy Guidelines include the following:</p> <ul style="list-style-type: none"> • Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management. • Develop and maintain a broad understanding of the corporation's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures.... • Balance prompt action with thorough deliberations, prioritize matter requiring attention, gather sufficient information, engage in open discussion, invite differing views, evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making.
IX-1: Communicate the comprehensive safety strategy to the PG&E workforce.	
U-21	Implement the recommendations identified in the outside vendor's communications audit.
U-22	Revise the communications plan as necessary to address any safety and health issues that are identified in recent and on-going Premier surveys and associated analyses

Source: *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture – First Update*, prepared for the California Public Utilities Commission, NorthStar Consulting Group, Inc., March 29, 2019, OIL.15-08-019.

Current Assessment of PG&E's Implementation of NorthStar's Recommendations

In November 2020, the Safety Policy Division (SPD) asked NorthStar to assess PG&E's implementation of the recommendations in NorthStar's May 8, 2017, Final Report from Phase I and the First Update Report, prior to the closeout of the Safety Culture OIL.⁶ The present report contains the results of that assessment.

PG&E's Progress Reporting

To date PG&E has filed eleven Quarterly Reports with the Commission describing its implementation status and any changes from previous Quarterly Reports. **Exhibit II-4** provides a listing of the Quarterly Reports and PG&E's testimony submitted with them, which included PG&E's initial implementation plans.

⁶ When the CPUC created the Safety Policy Division, management of the Safety Culture Assessment project transferred from the Safety Enforcement Division to the Safety Policy Division.

Exhibit II-4
PG&E Implementation Reporting

PG&E's Testimony	Pacific Gas and Electric Company Prepared Testimony, Safety Culture and Governance OII 15-08-019, U-39M, January 8, 2018.
1 st Quarterly Report Q4 2018	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.
2 nd Quarterly Report Q1 2019	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.
3 rd Quarterly Report Q2 2019	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.
4 th Quarterly Report Q3 2019	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 04-2019, in compliance with Decision 18-11-050, submitted October 31, 2019.
5 th Quarterly Report Q4 2019	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 05-2019, in compliance with Decision 18-11-050, submitted January 31, 2020.
6 th Quarterly Report Q1 2020	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 06-2020, in compliance with Decision 18-11-050, submitted April 30, 2020.
7 th Quarterly Report Q2 2020	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 07-2020, in compliance with Decision 18-11-050, submitted July 31, 2020.
8 th Quarterly Report Q3 2020	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 08-2020, in compliance with Decision 18-11-050, submitted October 28, 2020, CONFIDENTIAL
9 th Quarterly Report Q4 2020	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 09-2020, in compliance with Decision 18-11-050, submitted January 29, 2021.
10 th Quarterly Report Q1 2021	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 10-2021, in compliance with Decision 18-11-050, submitted April 30, 2021.
11 th Quarterly Report Q2 2021	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 11-2021, in compliance with Decision 18-11-050, submitted July 30, 2021.
12 th Quarterly Report Q3 2021	Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 12-2021, in compliance with Decision 18-11-050, submitted July 30, 2021.

B. PG&E'S IMPLEMENTATION PROCESS

In the third quarter of 2017, PG&E established a Program Management Office (PMO) to manage the implementation of the recommendations in the May 8, 2017, NorthStar Report. PG&E identified the necessary program management resources and established project management processes between July and September 2017. The PMO reported into the Chief Safety Officer's organization and consisted of a three-member executive team (Vice President, Safety and Health (S&H); Vice President, Regulatory Affairs; and the Senior Director, S&H) and a Core Team of six employees led by a PMO Lead. The PMO was charged with ensuring the timely implementation of NorthStar's recommendations and implementing governance processes related to the development of baseline plans, scope and schedule change documentation, status reporting, and issue resolution.

In implementing NorthStar's May 2017 Report recommendations, PG&E made the decision to group certain related recommendations. This resulted in 51 implementation plans for NorthStar's 65 recommendations.⁷ Each implementation plan was assigned to an

⁷ PG&E's January 8, 2018, Prepared Testimony.

implementation Plan Owner and a Plan Sponsor, each of whom may have been outside the core PMO team.⁸ All implementation plans contained the following elements:⁹

- Reference ID (to NorthStar's recommendations)
- The text of the recommendations covered by the implementation plan
- Definition of key terms
- The implementation plan
- A timeline
- The implementation status
- Assessment of completion and sustainability of PG&E's implementation plan.

As previously mentioned, the implementation plans were included in PG&E's January 8, 2018, Prepared Testimony and in PG&E's First Quarterly Report in late December 2018.

The PG&E PMO classified implementation status using the following lifecycle stages:

- Stage 1: No Plan
- Stage 2: Approved Plan (But Not Yet Started)
- Stage 3: Plan in Progress (Milestones in Progress)
- Stage 4: Key Milestones Complete
- Stage 5: Internal Audit Review Complete.¹⁰

PG&E's Quarterly Reports indicate the status of recommendation implementation using the same lifecycle terminology:

- **Key Milestones Complete** – An implementation plan enters Stage 4 when all the milestones within the plan have been achieved. At this point, the Plan Owner has deemed the plan complete. They then develop a completion narrative and collect associated documentation to support the completion narrative. The PMO reviews each plan and supporting documents for quality and completeness, and works with the Plan Owner to identify improvements, as necessary.
- **Internal Audit Review Complete** – In Stage 5, PG&E's Internal Audit department performs an independent review and verification of the implementation plan, completion narrative and associated evidence. Internal Audit's review and verification may require multiple submissions of evidence by the Plan Owner as Internal Audit assesses the sufficiency of the information provided by the Plan Owner.¹¹

Once approved by Internal Audit, the completion narratives are included in PG&E's Quarterly Reports.

⁸ DR 893 and Attachment.

⁹ PG&E's January 8, 2018, Prepared Testimony.

¹⁰ First Quarterly Report.

¹¹ First Quarterly Report.

In 2019, PG&E's PMO began to use a compliance management tool, MetricStream, to monitor all Safety OII implementation plans. MetricStream has the ability to assign ownership, track ongoing actions, and report on sustainability of actions across organizations.

PG&E uses MetricStream to conduct and document quarterly sustainability certification. As part of the certification process, Plan Owners review their plans and commitments, and respond to three certification questions focused on: (1) ongoing execution of plans, (2) identification of any changes to plans, and (3) certification of adherence with the Safety OII requirements. Each Plan Sponsor then reviews and approves the certification, as does the PMO.¹² Starting with the Sixth Quarterly Report, PG&E includes a summary of compliance certifications in the Quarterly Report.

C. ORGANIZATION OF THIS REPORT

The remainder of this report is organized in accordance with the chapters included in NorthStar's May 8, 2017, Safety Culture Assessment Report, which align with the review areas established by the Commission.

Chapter III:	Strategy and Governance
Chapter IV:	Organization
Chapter V:	Field Operations
Chapter VI:	Budgeting and Spending
Chapter VII:	Compensation and Performance Management
Chapter VIII:	Recruiting and Training
Chapter IX:	Communications
Chapter X:	Safety Reporting/Corrective Action
Chapter XI:	Contractor Safety
Chapter XII:	Project Management Office

For each recommendation in this Report, NorthStar provides the following:

- Statement of the recommendation.
- Background describing the findings/conclusions that resulted in the recommendation.
- PG&E's reported status.
- NorthStar's assessment as to the implementation of the recommendations.
- A discussion providing the rationale for NorthStar's implementation assessment.

¹² Third Quarterly Report.

CHAPTER III: STRATEGY AND GOVERNANCE

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to PG&E's strategy and governance. **Exhibit III-1** provides a summary of NorthStar's recommendations, their origin (NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report), and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit III-1
Summary of Strategy and Governance Recommendations

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
F-4	Development of a comprehensive safety strategy, with associated timelines/ deliverables, resource requirements and budgets, personnel qualifications, clear delineation of roles and responsibilities, action plans, assignment of responsibility for initiatives, and associated metrics to assess effectiveness. This should be followed with the identification of necessary corporate and LOB safety resource requirements and development of an appropriate organization structure. Also shared with SED.	NorthStar's May 8, 2017 Report, Executive Summary.	F-4, III-2, III-3, and V-3 grouped in one implementation plan.	A
III-1	Add safety to the list of qualifications used in selecting Independent Directors to the Board(s) of PG&E Corp. and PG&E. Periodically revisit the qualifications matrix and requirements for Independent Director as the industry and requirements change. Add Independent Directors to the Board who have experience with safety, perhaps in another industry such as aviation.	NorthStar's May 8, 2017 Report, Chapter III.	Individual implementation plan.	C
III-2	Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process (discussed in Chapter VI: Budgeting and Spending) should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.	NorthStar's May 8, 2017 Report, Chapter III.	F-4, III-2, III-3, and V-3 grouped in one implementation plan.	See Ch. VI – Budgeting and Spending.

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
III-3	<p>Develop a comprehensive safety plan (by the end of 2017) that incorporates LOB and Corporate Safety activities to eliminate duplication, prevent gaps and appropriately prioritize expenditures. The plan should address culture, employee health and wellness, contractor safety, employee safety and public safety. Solicit input from throughout the organization, particularly the field, in the development of the plan. The environmental function was removed for the Safety, Health & Environment organization. It should have its own plan. Elements of the plan should include:</p> <ul style="list-style-type: none"> • Clear definition of the problem • An in-depth, data-driven evaluation of the current as-is state • Definition of the to-be state (i.e., what does good look like) • Roles and responsibilities of corporate safety vis-a-vis LOB personnel • Tangible goals and objectives • Staffing/resource requirements and personnel qualifications • Clear assignment of responsibilities • Realistic timeline • Metrics to assess effectiveness • Defined budget • Action plans • Communications and change management plan. <p>The plan should be updated annually for at least two years and then at least every three years thereafter, with quarterly/annual monitoring of progress relative to the plan. The comprehensive plan should include all safety plans and programs of the Company, except for specific asset-related safety plans (such as asset management plans, leak survey programs or vegetation management) that should continue to be the responsibility of the various LOBs. The plan should be approved by the NOS Committee and the Boards, and endorsed and supported by executive management and the CPUC. The plan must be clearly communicated throughout the organization.</p>	NorthStar's May 8, 2017 Report, Chapter III.	F-4, III-2, III-3, and V-3 grouped in one implementation plan.	A
III-4	Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.	NorthStar's May 8, 2017 Report, Chapter III.	III-4 and VI-2 grouped into one implementation plan.	See Ch. VI– Budgeting and Spending
III-5	Internal Audit should play a more active role in auditing safety controls, programs and processes.	NorthStar's May 8, 2017 Report, Chapter III.	Individual implementation plan.	F
U-6	Increase CSO [Chief Safety Officer] oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.	March 29, 2019 Update Report.	Implemented under existing plan.	B
U-7	Communicate results of Internal Audit (IA) safety-related audits and LOB management response to Safety, Health and Enterprise CAP (reporting to the CSO).	March 29, 2019 Update Report.	Individual implementation plan.	G

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
U-8	Include the Generation Safety Lead in routine meetings between Electric Operations and Gas Operations and Safety & Health regarding the implementation of OH&S plan.	March 29, 2019 Update Report.	Implemented under existing plan.	H
U-9	<p>Conduct an annual (or biennial) blue sky strategic safety planning exercise to concentrate on the changing environment, potential risks and threats. The exercise should force a comprehensive analysis of all safety-related opportunities and threats and a formal, proactive action plan. The planning exercise should:</p> <ul style="list-style-type: none"> Consider the environmental, financial, political, technological, infrastructure, public, workforce and other risks and safety advancements. Include executives, management and potentially the BODs. Be facilitated by an outside expert. Cover ALL potential contributors to safety. 	March 29, 2019 Update Report.	Implemented under existing plan.	B
U-18	Report any changes in the Board of Director (BOD) skills matrix, and any changes to the composition of the BOD to the CPUC.	March 29, 2019 Update Report.	Implemented under existing plan.	C
U-19	Continue to update the BOD on safety and other significant industry issues.	March 29, 2019 Update Report.	Implemented under existing plan.	D
U-20	<p>Encourage BOD members to inquire and challenge PG&E executives to ensure a robust governance process. Revise PG&E Corp.'s Governance Guidelines to include expectations for Directors. As an example, see the Sempra Energy Corporate Governance Guidelines. Among other items, the Sempra Energy Guidelines include the following:</p> <ul style="list-style-type: none"> Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management. Develop and maintain a broad understanding of the corporation's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures.... <p>Balance prompt action with thorough deliberations, prioritize matter requiring attention, gather sufficient information, engage in open discussion, invite differing views, evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making.</p>	March 29, 2019 Update Report.	Individual implementation plan.	E

A. RECOMMENDATIONS F-4 AND III-3

Recommendations

F-4: Development of a comprehensive safety strategy, with associated timelines/deliverables, resource requirements and budgets, personnel qualifications, clear delineation of roles and responsibilities; action plans, assignment of responsibility for initiatives, and associated metrics to assess effectiveness. This should be followed with the identification of necessary corporate and LOB safety resource requirements and development of an appropriate organization structure. Also shared with SED.

III-3: Develop a comprehensive safety plan (by the end of 2017) that incorporates LOB and Corporate Safety activities to eliminate duplication, prevent gaps and appropriately prioritize expenditures. The plan should address culture, employee health and wellness, contractor safety, employee safety and public safety. Solicit input from throughout the organization, particularly the field, in the development of the plan. The environmental function was removed [from] the Safety, Health & Environment organization. It should have its own plan. Elements of the [Safety and Health] plan should include:

- Clear definition of the problem
- An in-depth, data-driven evaluation of the current as-is state
- Definition of the to-be state (i.e., what does good look like)
- Roles and responsibilities of corporate safety vis-a-vis LOB personnel
- Tangible goals and objectives
- Staffing/resource requirements and personnel qualifications
- Clear assignment of responsibilities
- Realistic timeline
- Metrics to assess effectiveness
- Defined budget
- Action plans
- Communications and change management plan.

The plan should be updated annually for at least two years and then at least every three years thereafter, with quarterly/annual monitoring of progress relative to the plan. The comprehensive plan should include all safety plans and programs of the Company, except for specific asset-related safety plans (such as asset management plans, leak survey programs or vegetation management) that should continue to be the responsibility of the various LOBs. The plan should be approved by the NOS (Nuclear Operations and Safety) Committee, [now the Safety and Nuclear Operations (SNO) Committee] and the Boards, and endorsed and supported by executive management and the CPUC. The plan must be clearly communicated throughout the organization.

Background

During its 2016-2017 Safety Culture Assessment, NorthStar found that PG&E had developed numerous corporate and LOB initiatives directed at improving safety; however, it did not have a stand-alone, comprehensive, enterprise-wide safety improvement plan. In response to NorthStar's concerns about the lack of a comprehensive and cohesive safety strategy/plan, in late 2017 PG&E developed the *One PG&E Occupational Health and Safety (OH&S) Plan* depicted in **Exhibit III-2**. The plan addressed many of the elements recommended by NorthStar including budgets, staffing levels, safety initiatives, goals and metrics, and assignment of responsibilities. However, the details of the plan were focused on workforce (employee and contractor) occupational health and safety and not the other areas recommended by NorthStar – process safety, safety culture and public safety.

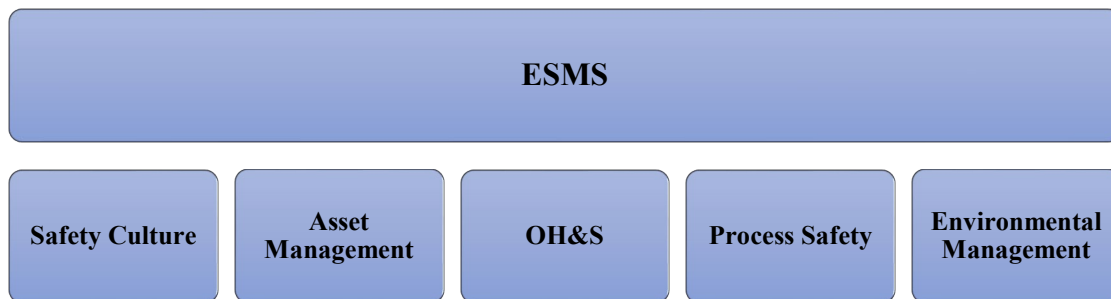
Exhibit III-2
One PG&E Occupational Health and Safety Plan Structure

Category	Employee Safety and Health					Contractor Safety	Motor Vehicle Safety	Enterprise Safety Management System
Focus Areas (Eight)	Musculoskeletal Disorders, Sprains and Strains	Safety Leadership Development	SIF Prevention	Injury Management	Health & Wellness	Contractor Safety	Motor Vehicle Safety	Enterprise Safety Management System
Tactics	<u>2018</u> Office Ergonomics Industrial Athlete Industrial Ergonomics Vehicle Ergonomics <u>2019</u> Use Biomechanical Data to Evaluate Stress/Strain Timely Ergo Intervention Enhanced Reporting on Key-boarding Risks Expand Post-Officer Physical Assessments	Safety Leadership Development Training Coaching Operational Learning Safety Academy Vanderbilt Research Project (added 2019)	Investigations Observations Enhanced Causal Evaluation Training (added 2019)	Timely Reporting Physician Outreach Program Return to Work (RTW) Task Program	Health Coaching Health Screenings Mental Health Support Health Promotion On-Site Care/Telemedicine	Training and Qualifications Field Observations and Performance Review Enhance Program Scope/Contractor Mgmt Standardize Safety Plans/Templates	Vehicle Safety Technology (VST) Driver Selection Actionable Leader Reports (added 2019)	Deep Dive Assessment ESMS Gap Closure Governance Tactics TBD in 2019
Goals	<u>Five Year Goals</u> Achieve 1 st Quartile Lost Work Day (LWD) Performance Achieve a 35% reduction in Days Away and Restricted Time (DART) rate Achieve a Total Cost Reduction of Musculoskeletal Disorders by 20% Reduce the percentage of workforce unavailable due to health as well as the costs associated with employees and dependent health absences Expand safety education beyond Leadership/Culture Development Workshops					<u>Five Year Goals</u> Achieve 80% of prime contractors with an "A" grade	<u>Five Year Goals</u> Achieve 1 st Quartile performance Preventable Motor Vehicle Accidents (PMVI)	<u>Five Year Goals</u> Compliant with Safety Management System (SMS) by 2021

Source: NorthStar graphic based on PG&E's January 8, 2018, Testimony, DR 938, DR 942 Attachment 5.

Safety culture and public safety were to be included under the umbrella of an Enterprise Safety Management System (ESMS), which would be developed later. The ESMS was intended to serve as the framework integrating public and employee/contractor safety and was determined to be critical to managing potential silos and driving an appropriate safety culture. The ESMS was scheduled to be implemented across the organization by 2021.¹ **Exhibit III-3** provides the proposed ESMS framework, which would include safety culture, process safety, and asset management – a significant contributor to public safety.

Exhibit III-3 PG&E ESMS Framework



Source: PG&E's January 8, 2018, Prepared Testimony, p. App3A-4.

During 2018 and 2019, PG&E's development of an ESMS suffered from insufficient management attention and sporadic starts and stops. In late 2020, PG&E continued to affirm its commitment to adopting an ESMS, but extended the completion date to 2022.²

PG&E Reported Status

Complete. PG&E reported this recommendation to be complete in its January 8, 2018, Testimony in I.15-08-019.

Results/NorthStar Assessment

Partially Implemented. In its March 29, 2019, First Update Report, NorthStar found that while PG&E had developed the *One PG&E OH&S Plan*, it did not include all aspects of safety. The *One PG&E OH&S Plan* did not address culture, public safety, or process safety. Additionally, NorthStar expressed continued concern about potential silos and their negative effects on safety results.

Since NorthStar's First Update, PG&E modified its safety strategy in late 2020, following the hiring of a new Chief Safety Officer (CSO). The new strategy, referred to as the *2025 Safety Strategy*, addresses gaps identified in the existing strategy and processes, but does not address public safety or process safety. The *2025 Safety Strategy* is discussed in further detail in the following section, but is primarily focused on workforce safety.

¹ PG&E's January 8, 2018, Testimony in I.15-08-019, p. App3A-3.

² Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 08-2020, in compliance with CPUC Decision 18-11-050, submitted October 28, 2020.

Discussion

In March 2020, PG&E appointed industrial safety expert Francisco Benavides as the CSO. At the April 28, 2020, Joint Session of the Audit, Compliance and Public Policy (CPP) and SNO Committees, Mr. Benavides presented his 100-day plan to build a long-term enterprise safety strategy for employees and contractors by the end of June 2020, based on gaps he had identified during his initial review. The plan focused on workforce safety and did not specifically include public safety, asset management, or process safety, which remain largely the responsibilities of the lines of business (LOB).³ The *2025 Safety Strategy* is summarized in **Exhibit III-4**. NorthStar has classified the elements of the 2025 Safety Strategy into the main components of the plan. The plan is based on two pillars – systems and culture. The blue boxes in Exhibit III-4 represent the systems, and the teal boxes represent culture.

Exhibit III-4
The Components of PG&E’s 2025 Safety Plan



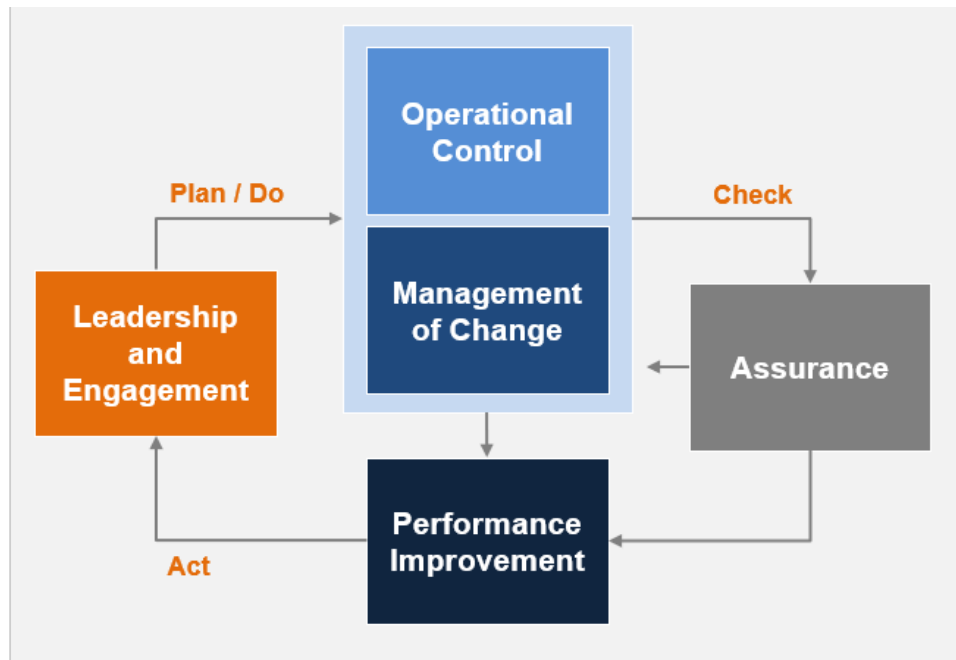
Source: DR 1192, Attachment 33, DR 1267 Attachment “2025 Workforce Strategy” DR 1296.

The *2025 Safety Strategy* replaced the ESMS with an Occupational Health and Safety Management System (HSMS) focused on workforce safety.⁴ **Exhibit III-5** shows the HSMS framework.

³ DR 1245.

⁴ IR 343, DR 1568.

**Exhibit III-5
PG&E HSMS Framework**



Source: DRs 1569 and 1569 - CONFIDENTIAL.

**Exhibit III-6
Safety Management/Asset Management System Status – as of June 30, 2021**

LOB	Status	Comments
Enterprise (ESMS)	Abandoned	Plans for ESMS abandoned in late 2020 and replaced with an HSMS focused on Occupational Health & Safety.
Health & Safety (HSMS)	In process	ISO 45001 implementation targeted for Q4 2022. The HSMS consists of five elements: Leadership & Engagement, Operational Control, Management of Change, Performance Improvement, and Safety Assurance.
Gas Operations	In place/ certified	Mature system based on ISO 55001/PAS 55 (asset management) – certified in 2014/recertified in 2017, API 1173 (safety culture) – certified in 2015/recertified in 2018, and RC 14001/API 754 (process safety) – certified in 2019. Includes safety culture and process safety.
Electric Operations	In process	ISO 55001 in process – projected certification anticipated Q3 2021. Developed asset families, gap analyses in 2018 and 2019, asset management plan and annual updates. Process safety and safety culture not part of current plan.

LOB	Status	Comments
Power Generation	In process	ISO 55001 in process – projected certification anticipated Q4 2022. Power Generation (PG) has identified the asset families and has developed a policy and strategic asset management plan. Gap analysis conducted. PG also has a Dam Safety Program (DSP) and external Dam Safety Advisory Board (DSAB). The DSAB conducts periodic independent reviews of PG&E's DSP to evaluate its performance relative to PG&E's Dam Safety Program Standards and Procedures and determine whether the DSP is being implemented and maintained in a manner that promotes the safety, reliability, and continued long-term performance of PG&E's dams. Process safety and safety culture not part of current plan.

Source: DR 920, IRs 369, 370, 371, DR 1451, May 18, 2021, Safety Technical Council Presentation, DR 1566 and Attachments – CONFIDENTIAL, DR 1568, Attachment – CONFIDENTIAL, DR 1569, Attachments – CONFIDENTIAL.

As described by PG&E, the CSO, Chief Risk Officer (CRO) and the LOBs coordinate on safety matters at the strategic level.⁵

B. RECOMMENDATIONS U-6 AND U-9

Recommendations

U-6: Increase CSO [Chief Safety Officer] oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.

U-9: Conduct an annual (or biennial) blue sky strategic safety planning exercise to concentrate on the changing environment, potential risks and threats. The exercise should force a comprehensive analysis of all safety-related opportunities and threats and a formal, proactive action plan. The planning exercise should:

- Consider the environmental, financial, political, technological, infrastructure, public, workforce and other risks and safety advancements.
- Include executives, management and potentially the BODs.
- Be facilitated by an outside expert.
- Cover ALL potential contributors to safety.

Background

As discussed previously, and described in NorthStar March 29, 2019, First Update Report, the *One PG&E OH&S Plan* was not the comprehensive safety strategy initially recommended by NorthStar. In its First Update Report, NorthStar expressed concern about the ongoing silos or disconnects between Corporate Safety and each of the LOBs, disconnects between the LOBs,

⁵ PG&E Fact Verification.

and the continuing need for overarching governance over achieved safety outcomes.⁶ NorthStar was also concerned that the safety strategy did not adequately consider public safety. To address these gaps, in 2019, NorthStar recommended greater CSO oversight of public safety and a blue-sky strategic safety planning exercise to address the gaps in PG&E's implementation of NorthStar's safety strategy recommendations.

PG&E Reported Status

In its Quarterly Reports to the Commission, PG&E classified Recommendations U-6 and U-9 as "Implemented Under Existing Plan" and thus did not provide a completion date. See Chapters II and XII for additional discussion regarding PG&E's treatment of NorthStar's March 29, 2021, First Update Report recommendations.

Results/NorthStar Assessment

U-6: Partially Implemented.

U-9: Implemented.

Discussion

Organization

In July 2020, PG&E announced changes to its risk and safety leadership structure to "further strengthen the utility's enterprise-wide risk mitigation and operational safety capabilities."⁷ To that end, PG&E hired an SVP and CRO responsible for overseeing all risk management activities associated with operations and public safety. The existing CSO, responsible for employee and contractor safety, was promoted to SVP. Both positions report to the CEO. According to PG&E, the CSO and CRO coordinate on matters of public safety. In PG&E's 2023 General Rate Case (GRC) Testimony, dated June 30, 2021, the CSO, Francisco Benavides, describes the changes in PG&E's safety structure since the 2020 GRC filing:

Patti Poppe became the new Chief Executive Officer (CEO) of PG&E Corporation in January 2021. Ms. Poppe brings deep industry knowledge and decades of operational, safety and leadership experience. Ms. Poppe has brought a fresh approach to the safety conversation – one that emphasizes the human impact of decisions, actions, and safety incidents.

I was hired in March 2020 as PG&E's Chief Safety Officer (CSO), leading the Enterprise Health & Safety (EH&S) organization, and I report directly to Ms. Poppe. I bring 30 years of industrial safety, health, and environmental experience to PG&E, and have a proven track record of reducing injury rates, eliminating fatalities, and reducing the rate of high-potential incidents. Since joining PG&E, I have led the development of the EH&S future state organizational design, filled critical

⁶ March 29, 2019, NorthStar Consulting Group, Inc., *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture, First Update – Final Report*, prepared for the California Public Utilities Commission, p. III-23.

⁷ July 6, 2020, News Release.

https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20200706_pge_announces_new_risk_and_safety_leadership_structure

safety leadership roles with experienced leaders to build strength and skills within the safety leadership team, and developed the 2025 Workforce Safety Strategy. Additionally, while public safety is a shared responsibility between EH&S, Risk Management and the LOBs, I play a critical role in the oversight of public safety.⁸

PG&E proposed in the Plan of Reorganization (POR) rulemaking to regionalize its operations to improve safety and customer service. The California Public Utilities Commission (Commission) adopted PG&E's regionalization proposal and directed PG&E to hire a new Regional Safety Director for each region by June 1, 2021. The five Regional Safety Directors report to me and will support the Regional Vice Presidents and success of the regions.⁹

Mr. Benavides' Prepared Testimony provides the following discussion of the respective public safety roles and responsibilities:¹⁰

The LOBs, Risk Management and EH&S each play a critical role in protecting the public and learning and improving after an incident.

- **LOBs:** First, the highest priority of the operating LOBs is to operate Company assets safely. This priority protects employees, contractors, and the public. It is what PG&E does every day. This includes wildfire risk mitigation, asset management, safe work practices, and standards. This is the core mission and the LOBs are responsible for operational execution.
- **Risk Management:** Second, PG&E identifies public safety risks and mitigates them. This function is administered primarily by the Enterprise and Operational Risk Management Organization for enterprise-wide risk and by operating LOBs for LOB-specific risks. The risk function reviews potential risk, prioritizes, implements mitigations, and tracks those mitigations.
- **EH&S:** Third, PG&E investigates public safety incidents that involve Company assets. The causal evaluation standard requires serious public safety incidents to be reviewed, root causes determined, mitigations implemented, and learnings cascaded across the enterprise. PG&E also tracks public safety incidents in metrics, looks for trends and evaluates success in mitigating risks to the public. The causal review process is administered by EH&S, although the cause evaluations are typically conducted by the impacted LOB.

The CSO and CRO jointly sponsor the enterprise-wide Public Safety Risk Council and both attend the weekly Workforce Safety Operating Review and the Wildfire Safety Operating Review, which were established as part of the adoption of Lean operating principles in 2021.¹¹

Planning

Historically, PG&E's Integrated Planning Process (IPP), specifically its Session D, was the annual process to review discernible contributors to safety risk, understand the changing environment, and develop action plans. This process included input from contributors at all levels of the organization. Safety risks were identified and ranked in Risk Registers, which along with the associated controls and mitigations, informed the safety strategy. In 2019, PG&E made improvements to the risk planning process by focusing on event-based risk. This approach

⁸ DR 1490 Rev.01, p. 2-3.

⁹ DR 1490 Rev.01, pp. 2-3 to 2-4.

¹⁰ DR 1490 Rev.01, p. 2-28.

¹¹ DR 1490 Rev.01 and PG&E Fact Verification.

enhanced the risk quantification by increasing the safety weighting, and expanding the risk ranking to the top 40 percent of the perceived company risks, thereby enhancing the visibility and prioritization of effort placed around company safety risks.¹² Each LOB discussed its risks in the Risk and Compliance Committee (RCC) meetings.

In early 2020, PG&E conducted an enterprise-wide horizon scan, surveying 400 Directors. The results were shared in PG&E's IPP Session D. PG&E subsequently developed an annual risk horizon scanning process involving a review of PG&E's Risk Register, recent industry events, liabilities and lawsuits, regulatory notices of violations (NOVs), relevant Corrective Action Program items, issues raised at the LOB RCC meetings, an executive leadership survey, and input from outside experts. Results are brought to the Public Safety Risk Committee and shared with the Board of Directors.¹³ The process is currently being formalized in a procedure.

Under the new CEO, PG&E is currently developing a long-term corporate strategic plan with near-term action items.

C. RECOMMENDATIONS III-1 AND U-18

Recommendations

III-1: Add safety to the list of qualifications used in selecting Independent Directors to the Board(s) of PG&E Corp. and PG&E. Periodically revisit the qualifications matrix and requirements for Independent Director as the industry and requirements change. Add Independent Directors to the Board who have experience with safety, perhaps in another industry such as aviation.

U-18: Report any changes in the Board of Director (BOD) skills matrix, and any changes to the composition of the BOD to the CPUC.

Background

In its May 8, 2017, Report, NorthStar found that PG&E did not include safety experience as a qualification for members of its Boards of Directors. Safety was not a component of the skills matrix used to assess the needs of the Boards, and the existing members had limited direct safety experience.

In its March 29, 2019, First Update Report, NorthStar found that PG&E had added safety to the skills matrix for new and existing Independent Directors, as recommended by NorthStar.¹⁴ However, to ensure sustainability, NorthStar recommended that PG&E report any changes in the skills matrix, and any changes to the composition of the Board to the Commission.¹⁵

¹² DR 1087.

¹³ IR 409.

¹⁴ March 29, 2019, First Update Report, p. III-54.

¹⁵ March 29, 2019, First Update Report, p. III-57.

PG&E Reported Status

Complete. PG&E reported Recommendation III-1 complete in its January 8, 2018, Prepared Testimony in I.15-08-019.¹⁶

PG&E classified Recommendation U-18 as “Implemented Under Existing Plan” and thus did not provide a completion date. See Chapters II and XII for an additional discussion of PG&E’s treatment of NorthStar’s March 29, 2021, First Update Report recommendations.

Results/NorthStar Assessment

III-1: Implemented. In its March 2019 Update Report, NorthStar found that PG&E added safety to the skills matrix for new and existing Independent Directors, as recommended. From the Spring of 2019 through June 30, 2020, PG&E was out of conformance with its own modified Director skill requirements as recommended by NorthStar. However, both before and after that period, it was in conformance with NorthStar’s recommendation.

U-18: Implemented. Changes to the Board of Directors or skills matrix are readily available public information and are reported to the Commission.

Discussion

In response to this recommendation, both the PG&E Corp. and PG&E Boards indicated that they added “safety expertise” to the list of skills and characteristics considered when assessing candidates for the Boards. Each company’s Corporate Governance Guidelines require an annual review of such skills and characteristics of all existing Board members, taking into account the then current needs of the applicable Board and company. Both Boards approved the modified skill requirements at their December 20, 2017, meeting. In July 2018, PG&E/PG&E Corp. added the President and Chief Operating Officer (COO) of Alaska Airlines to both Boards.

Subsequent to PG&E’s filing for bankruptcy on January 29, 2019, substantially all of the Directors were replaced. The experience of many of the incoming Directors was primarily in the area of finance, with specific experience in corporate bankruptcy. This new reconstituted Board did not adequately satisfy the requirements described above.

In its January 31, 2020, Prepared Testimony in the bankruptcy proceeding (OII 19-09-016), PG&E indicated that it intends that its new skills matrix:

will include criteria to encourage the election of directors who collectively reflect some or all of the following attributes, expertise, or experience all of which are germane to PG&E’s needs and business and safety environment going forward:

- Wildfire safety, preparedness, prevention, mitigation, response, and/or recovery;
- Workforce safety and/or public safety;
- Technology and cybersecurity;
- Nuclear generation safety;

¹⁶ PG&E’s January 8, 2018, Prepared Testimony in I.15-08-019, p. App2A-19.

- Natural gas transmission, distribution, operation, and safety;
- Public policy (legal, regulatory, or government);
- Leadership in the energy or utility industry;
- Utility operation or related engineering experience;
- Innovation and technology in the clean energy or utility industry;
- Risk management (including enterprise risk management);
- Climate change mitigation or climate resilience;
- Renewable energy and related engineering experience;
- Financial performance and planning;
- Financial literacy;
- Audit;
- Management incentives;
- Labor relations;
- Large scale customer experience;
- Public company board experience; and
- Community leadership.

PG&E intends to require that, to be eligible for nomination by the Boards for election as a director, an individual must satisfy a minimum number of qualifications identified on the skills matrix (as further defined in consultation with the independent search firm), consistent with the goal of establishing Boards that collectively reflect the range of attributes set forth in the matrix.¹⁷

As part of the February 18, 2020, Ruling and Proposals, the Assigned Commissioner required that the skills matrix include additional criteria that must be met by the Chair of the Board of PG&E, the Chair of the SNO Committees, and at least one other director. Directors who meet one or more of the safety expertise criteria would serve on the Safety Subcommittees. The safety expertise criteria should include the following: specific substantial expertise related to wildfire safety, wildfire prevention, and/or wildfire mitigation; specific substantial expertise related to the safe operation of a natural gas distribution company; and specific substantial expertise related to enterprise risk management, including cyber security, and/or experience with nuclear safety (prior to the cessation of production operations of Diablo Canyon Nuclear Power Plant in 2025).¹⁸

The Boards of Directors were again substantially replaced effective June 30, 2020, when the corporation emerged from bankruptcy. These new 2020-elected Directors largely represent the make-up of the current Board. Their skills and experience do reflect the criteria specified in the skill matrix PG&E agreed to in December 2017 and required as part of PG&E's emergence from bankruptcy.

In its 2nd Quarterly Report, PG&E provided the following discussion regarding changes to the Board:¹⁹

On April 3, 2019, PG&E Corporation announced the appointment of William "Bill" Johnson as Chief Executive Officer and President and appointment of 10 new directors to its board of directors. On April 22, PG&E Corporation announced the appointment of Fred Buckman to its

¹⁷ OII 19-09-016, January 31, 2020, PG&E Testimony, Volume I, pp. 4-11 to 4-12.

¹⁸ February 18, 2020, Assigned Commissioner Ruling and Proposals (I. 19-09-016).

¹⁹ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.

board of directors, replacing Richard Kelly; the hiring of Christopher Hart, former chairman of the National Transportation Safety Board, to serve as a specific independent safety advisor reporting directly to Bill Johnson; and the proposal to increase the maximum size of the PG&E Corporation board to 15 directors, to be voted on at PG&E's Annual Meeting. These significant changes in leadership reflect PG&E's continued focus on strengthening its safety culture. PG&E will provide further details about its corporate leadership and governance changes in its third Report in July 2019.

In its 8th Quarterly Report dated October 28, 2020, PG&E provided the following discussion of the selection of a new Board of Directors:²⁰

On July 1, 2020, PG&E and PG&E Corporation seated eleven new Board members of fourteen total Board members. The changeover of the Board is part of PG&E's efforts to transform into a stronger company in order to improve operations and safety and better serve its customers and communities. The eleven new Board members offer substantial expertise in key areas critical to PG&E's work. These include utility operations and management, safety and environment, risk management, customer engagement, innovation and technology, regulatory affairs (state and federal), audit and finance, corporate governance, nuclear operations and decommissioning, and human capital and executive compensation. In addition, six of the eleven new directors are from California and have made their careers in the state, gaining extensive knowledge of the communities PG&E serves and the political, social, and physical environment in which the company operates.

PG&E Corp.'s revised skills matrix is shown in **Exhibit III-7**. PG&E is required to file a Tier 2 advice letter setting forth any proposed modifications to the skills matrix following emergence from bankruptcy for a period of at least 7 years.²¹

Exhibit III-7 **PG&E and PG&E Corp. Board Member Skills Matrices – 2019 and 2021**

2019 Joint Proxy Statement	2021 Joint Proxy Statement
Safety	<ul style="list-style-type: none"> • Wildfire safety, preparedness, prevention, mitigation, response and/or recovery • Workforce safety and/or public safety • Nuclear generation safety
Senior executive	Leadership in the energy or utility industry
Energy/utility industry	<ul style="list-style-type: none"> • Utility operation or related engineering experience • Natural gas transmission, distribution, operation and safety
Other public board service	Public company board experience
Governmental service/public policy	Public policy (legal, regulatory or government)
Legal	
Community affairs	Community leadership
Information technology/digital business	Technology and cybersecurity
	Innovation and technology in the clean energy or utility industry
Environmental Affairs	
	Climate change mitigation or climate resilience
Business operations, marketing, customer service	Large scale customer experience

²⁰ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 08-2020, in compliance with Decision 18-11-050, submitted October 28, 2020.

²¹ PG&E Fact Verification.

2019 Joint Proxy Statement	2021 Joint Proxy Statement
Pacific Gas and Electric Company customer	
Financial literacy	Financial literacy
Audit/accounting/finance	<ul style="list-style-type: none"> • Audit • Financial performance and planning
Strategic planning/M&A	
Restructuring	
Executive compensation/development	Management incentives
Risk management	Risk management including enterprise risk management
Corporate governance	
Media relations/investor relations	
Crisis response/management	
	Labor Relations
	Renewable energy and related engineering experience

Source: 2019 and 2021 Joint Proxy Statements.

D. RECOMMENDATION U-19

NorthStar Recommendation

U-19: Continue to update the BOD on safety and other significant industry issues.

Background

In its March 29, 2019, Update Report, NorthStar recommended that PG&E continue to update the Board of Directors on safety and significant industry events. In its May 8, 2017, Report, NorthStar found that the Board was not sufficiently apprised of safety risks and issues.

PG&E Reported Status

PG&E classified this as “Implemented Under Existing Plan” and thus did not provide a completion date. See Chapters II and XII in this Report for additional discussion of PG&E’s treatment of NorthStar’s March 29, 2019, First Update Report recommendations.

NorthStar Assessment

Implemented.

Discussion

NorthStar attended numerous Safety and Nuclear Oversight Committee meetings and Board of Director meetings in 2020 and early 2021. NorthStar has also reviewed materials presented to the Board, the minutes of the meetings, Board onboarding materials, and the training activities described in the Quarterly Reports. PG&E continues to update the BOD on safety and other significant industry issues.

E. RECOMMENDATION U-20

Recommendation

U-20: Encourage BOD members to inquire and challenge PG&E executives to ensure a robust governance process. Revise PG&E Corp.'s Governance Guidelines to include expectations for Directors. As an example, see the Sempra Energy Corporate Governance Guidelines. Among other items, the Sempra Energy Guidelines include the following:

- Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management.
- Develop and maintain a broad understanding of the corporation's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures.
- Balance prompt action with thorough deliberations, prioritize matter requiring attention, gather sufficient information, engage in open discussion, invite differing views, evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making.

Background

At the time of NorthStar's First Update, it found the Board of Directors to be relatively reticent in actively questioning PG&E. Subsequent Boards have been more active.

PG&E Reported Status

Complete. PG&E reported that milestones were complete in its 6th Quarterly Report, provided its completion narrative in its 7th Quarterly Report and indicated IA's review was complete in its 8th Quarterly Report.²²

NorthStar Assessment

Implemented.

Discussion

In December 2019, the PG&E Boards amended the Corporate Governance Guidelines to include the language shown in **Exhibit III-8**.²³ As of July 2021, the Guidelines remained the same.²⁴

²² Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 06-2020, in compliance with Decision 18-11-050, submitted April 30, 2020; Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 07-2020, in compliance with Decision 18-11-050, submitted July 31, 2020; and, Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 08-2020, in compliance with Decision 18-11-050, submitted October 28, 2020.

Exhibit III-8

PG&E Corporate Governance Guidelines

Expectations for Directors

The Board of Directors is a vehicle for corporate policy-making, monitoring and consultation. It functions as a collective whole rather than through the unilateral actions of individual directors who, as such, have no authority to represent or commit the Board or PG&E Corporation.

Although the Board functions as a unit, Board effectiveness is determined by the character, integrity, judgment, knowledge, experience, efforts and contributions of the individual directors, each fulfilling duties of loyalty and care and working constructively with fellow directors and management. The Board expects that each director will:

- Exercise diligent and constructive oversight over the Company's business and affairs.
- Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management.
- Develop and maintain a broad understanding of the Company's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures.
- Understand and respect the roles of the Board and the roles and responsibilities of management, and observe the confidentiality of Board deliberations, corporate plans and information.
- Balance prompt action with thorough deliberations, prioritize matters requiring attention, gather sufficient information, engage in open discussion, and invite differing views (consistent with support of a "speak up" culture), evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making.

Source: [PG&E CORPORATION BOARD OF DIRECTORS CORPORATE GOVERNANCE GUIDELINES \(pgecorp.com\)](http://pgecorp.com).

F. RECOMMENDATION III-5

Recommendation

III-5: Internal Audit should play a more active role in auditing safety controls, programs and processes.

Background

Prior to NorthStar's Recommendation III-5, the Internal Audit Department (IA) did not separately report a list of safety-related audits.

²³ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 07-2020, in compliance with Decision 18-11-050, submitted July 31, 2020.

²⁴ [PG&E CORPORATION BOARD OF DIRECTORS CORPORATE GOVERNANCE GUIDELINES \(pgecorp.com\)](http://pgecorp.com).

PG&E Reported Status

Complete. PG&E reported this recommendation to be complete in its January 8, 2018, Prepared Testimony in I.15-08-019.²⁵

NorthStar Assessment

Implemented.

Discussion

Internal Audit now includes a regular report titled “Safety Culture Order Instituting Investigation (OII) NorthStar Report – Utility’s Response(s) to Recommendations” in each quarter’s report to the Boards of Director’s Audit Committees. The purpose of this report is to show, on an on-going basis, IA’s continued work to review and validate PG&E’s progress in implementing NorthStar’s recommendations. IA does not produce a separate documented audit report for each quarter’s work done in this area. Instead, IA provides continuous, real-time direction and support to the business in its overall implementation of the NorthStar recommendations.²⁶

As noted by PG&E, the Company has focused on “continued work as recommended by NorthStar”. However, a review of safety-related audits since January 2019 indicates that additional areas of IA review should be considered.²⁷ PG&E lists 72 safety-related internal audits in this time period. While the list includes many areas of significance, it also fails to include some of the most significant areas that affect public safety. For example, there are no audits of the data or the decision-making processes related to Public Safety Power Shut-Off (PSPS) events. Similarly, there are no audits of important fire prevention programs, such as how PG&E is managing its tree trimming commitments in order to reduce fire risk. IA should focus on all safety controls, programs, and processes, not just those identified in NorthStar’s original recommendations.

According to PG&E, to address NorthStar recommendation III-5, IA added additional audits and control advisories focused solely on safety related practices, both owned by the EH&S team and by the operational LOBs, and has maintained an elevated level of coverage in this area since the recommendation was made.²⁸

G. RECOMMENDATION U-7

Recommendation

U-7: Communicate results of Internal Audit (IA) safety-related audits and LOB management response to Safety, Health and Enterprise CAP (reporting to the CSO).

²⁵ PG&E’s January 8, 2018, Prepared Testimony in I.15-08-019, p. App2A-19.

²⁶ DR 978.

²⁷ DR 1491.

²⁸ PG&E Fact Verification.

Background

Prior to NorthStar's recommendation, IA did not routinely communicate the results of safety-related audits to the Safety, Health, Enterprise Corrective Action Program (ECAP) and Department of Transportation (DOT) organization (SHED) organization and the CSO. The safety-related elements of the SHED organization are now part of the Environmental Health and Safety (EH&S) organization, which reports to the CSO.

PG&E Reported Status

Complete. PG&E reported that its IA review was complete in its July 31, 2020, Quarterly Report.

NorthStar Assessment

Implemented. IA provides the results of safety-related audits to the CSO and updates the status of audit issues at monthly RCC meetings.

Discussion

In the second quarter of 2020, IA began to include the SHED organization in the distribution of safety-related audit reports. The SHED VP and CSO are addressed or cc'd on each safety-related audit.²⁹

Internal Audit also reports the status of its audits at the monthly LOB RCC meetings, and provides the status of safety-related audits in the EH&S RCC meetings.³⁰

H. RECOMMENDATION U-8

NorthStar's Recommendation

U-8: Include the Generation Safety Lead in routine meetings between Electric Operations and Gas Operations and Safety & Health regarding the implementation of OH&S plan.

Background

The March 2019 NorthStar Update Report found that there were processes in place to foster communication between the Electric and Gas Safety Leads and the Safety and Health organization regarding implementation of the One PG&E Occupational Health and Safety (OH&S) Plan. The Safety Leads for other LOBs, such as Generation, were involved in some, but not all, joint efforts regarding the One PG&E Occupational Health and Safety Plan implementation.

²⁹ PG&E Quarterly Report, July 31, 2020.

³⁰ Gas Operations RCC Presentation, February 17, 2021; Electric Operations RCC Presentations, February 26, 2021 and March 26, 2021.

When NorthStar performed its fieldwork in 2018, both Electric Operations and Gas Operations had just recently established safety organizations led by Safety Directors that reported to SVPs. Generation did not have a similar organization. In contrast, the Safety Lead for Generation reported to an O&M Director.

The LOB Safety Leads were responsible for execution of the OH&S Safety Plan in each LOB. The Electric and Gas Safety Directors met weekly with Safety & Health Directors. The LOB Safety Leads that were not directors did not participate in this meeting; however, they were included in monthly Safety Alignment meetings to discuss programs, projects and risks to execution.

PG&E Reported Status

Implemented under existing plan.

Results/NorthStar Assessment

No longer applicable. There are no longer weekly meetings between the Electric and Gas Operations Safety Leads and the EH&S Directors.

Discussion

PG&E's enterprise and operating LOB safety programs, organizations and meeting structures have matured since NorthStar's 2018 review. There are no longer weekly meetings between the Electric and Gas Operations Safety Leads and the EH&S Directors. In fact, the entire Electric Operations safety organization has moved to the Enterprise Health and Safety (EH&S) organization.³¹

The monthly Safety Technical Council is now the established forum to discuss issues related to greater coordination between Enterprise Health and Safety and the various Lines of Business. It is attended monthly by the EH&S VP and Directors, the Directors responsible for safety in each LOB, as well as union leaders and representatives from Corporate Communications and Law.³²

³¹ 9th Quarterly Safety Report, January 29, 2021, p. 12.

³² 9th Quarterly Safety Report, January 29, 2021. P. 12.

CHAPTER IV: ORGANIZATION

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to PG&E's organization. **Exhibit IV-1** provides a summary of NorthStar's recommendations, their origin (NorthStar's May 8, 2017, Initial Safety Culture Assessment or its March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit IV-1 Organization Recommendations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
IV-1	Appoint a Corporate Safety Officer who has both operations and professional safety experience. NorthStar is aware that Mr. Higgins replaced Mr. Bell as Corporate Safety Officer on March 1, 2017. While Mr. Higgins has operating experience with National Grid, PG&E and other utilities, he does not have professional safety training or experience. Mr. Higgins should undertake a professional training program that will provide him with the necessary skills as soon as possible.	NorthStar's May 8, 2017 Report, Chapter IV	Individual implementation plan.	A
IV-2	The Corporate Safety Officer should report to the COO of the Utility and to the NOS Committee of the Board in the same manner that the head of Internal Audit reports to the Audit Committee of the Board in most public companies. (It is NorthStar's understanding that this has been implemented.)	NorthStar's May 8, 2017 Report, Chapter IV	Individual implementation plan.	B
IV-3	Examine workload levels, potential morale issues and other demands to understand and mitigate the reasons for the high turn-over at the Sr. Director, Safety and Health position and throughout the Corporate Safety organization.	NorthStar's May 8, 2017 Report, Chapter IV	IV-3, IV-4 grouped in one implementation plan.	C
IV-4	Following the development of the safety strategy, review the structure, reporting relationships and staffing levels of the Corporate Safety organization to ensure PG&E has the resources necessary for strategy execution and proper coordination with/support for the LOBs.	NorthStar's May 8, 2017 Report, Chapter IV	IV-3, IV-4 grouped in one implementation plan.	C
IV-5	Improve the safety credentials of personnel in PG&E's safety functions and organizations.	NorthStar's May 8, 2017 Report, Chapter IV	F-5, IV-5, IV-6, IV-7, V-1, V-2, V-5 grouped in one implementation plan.	A
IV-6	Simplify and clarify the roles and responsibilities of the Corporate Field Safety Specialists (FSS) vis-à-vis the LOB FSS to eliminate duplication, and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.	NorthStar's May 8, 2017 Report, Chapter IV	F-5, IV-5, IV-6, IV-7, V-1, V-2, V-5 grouped in one implementation plan.	See Chapter V Field Operations
IV-7	Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure they are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.	NorthStar's May 8, 2017 Report, Chapter IV	F-5, IV-5, IV-6, IV-7, V-1, V-2, V-5 grouped in one implementation plan.	See Chapter V Field Operations

A. RECOMMENDATIONS IV-1 AND IV-5

Recommendations

IV-1: Appoint a Corporate Safety Officer who has both operations and professional safety experience. NorthStar is aware that Mr. Higgins replaced Mr. Bell as Corporate Safety Officer on March 1, 2017. While Mr. Higgins has operating experience with National Grid, PG&E and other utilities, he does not have professional safety training or experience. Mr. Higgins should undertake a professional training program that will provide him with the necessary skills as soon as possible.

IV-5: Improve the safety credentials of personnel in PG&E's safety functions and organizations.

Background

At the time of NorthStar's initial safety culture assessment, senior leaders in Corporate Safety had little or no previous experience in utility operations and no direct safety management experience. Overall, individuals responsible for PG&E's various safety functions and organizations lacked safety credentials. The Lead Corporate Safety Officer from roughly 2011 through 2016 had no prior experience in utility operations or managing safety functions. His resume showed no safety experience prior to joining PG&E in 2009 as an SVP and Senior Supply Officer. Additionally, two individuals had served as Vice President Safety Health & Environment (SH&E) since the position was created. Neither individual had direct safety credentials.

- Ms. Janet Loduca had been VP, Health and Environment for two years when safety was added to the organization in April 2014. She then served as VP SH&E for 9 months until December 2014. She is an attorney whose prior positions include Regulatory Affairs, Chief of Staff and Corporate Relations.
- The VP SH&E from January 2015 through early 2017, was previously the VP – Human Resources (March 2011 - December 2014) and the Senior Director Labor Relations (December 2007 – March 2011.) Prior to joining PG&E he was the Senior Counsel for Pennsylvania Power & Light for 20 years.

PG&E Reported Status

Complete. PG&E reported this recommendation as complete in its January 8, 2018, Prepared Testimony in I.15-08-019. In its First Quarterly Report, PG&E reported that Internal Audit had completed its review of PG&E's completion narrative.¹

¹ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

Results/NorthStar Assessment

IV-1: Partially implemented.

IV-5: Partially implemented.

Discussion

In response to NorthStar's concerns about the lack of safety expertise at the higher levels of the safety organization, PG&E promoted John Higgins to VP Safety and Health and added Todd Hohn as Senior Director, Safety and Health:

John Higgins, currently Vice President of Gas Transmission and Distribution Operations, will become Vice President of Safety and Health for Pacific Gas and Electric Company, reporting directly to Stavropoulos in recognition of the importance of safety. Higgins' responsibilities will include overseeing the company's Enterprise Corrective Action Program. Todd Hohn, who joins PG&E from Underwriter Laboratories, will report to Higgins and serve as Senior Director of Safety and Health.²

At the time, Mr. Hohn had 25 years' experience in developing and implementing workplace safety and health programs. Prior to joining PG&E, he served as Global Director of Workplace Health and Safety for Underwriters Laboratory Inc. Prior to that, he was Assistant VP of Risk Control for CNA Insurance. He is a Certified Safety Professional and has a broad range of safety and health industry affiliations.³

Mr. Higgins had utility expertise and some gas operations safety experience, but he was not a safety professional. As a result, NorthStar recommended that he undertake safety training. As part of PG&E's implementation of this recommendation, PG&E developed an onboarding/training plan for new CSOs; however, Mr. Higgins had not completed his required training when the recommendation was classified as complete.

According to PG&E, when it implemented NorthStar's recommendation IV-1, it created an on-boarding plan to ensure that any new CSO receives guidance about areas for development which complement their experience and skills relevant to the CSO position. As described in its implementation plan:

Key compliance commitments were identified within the scope of the CSO's organizational responsibility. For each commitment, one or more on-boarding technique was identified, e.g., certification, training, subject-matter expert briefing. The CSO leverages PG&E's annual development plan process to set goals and track progress toward filling any identified knowledge or skill gaps. The CSO's immediate supervisor (currently the President and COO) is responsible for monitoring and supporting completions of all development plans.⁴

²https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20170111_pge_streamlining_management_implementing_efficiency_measures_to_keep_customer_bills_affordable_while_investing_in_the_future

³ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, May 8, 2017, Final Report.

⁴ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

PGE's Implementation Plan Completion Narrative provides the following additional discussion:

The On-Boarding plan for PG&E's Corporate Safety Officer (CSO) position is aligned with the position's major areas of responsibility:

- PG&E Safety Culture
- OSHA/CalOSHA Regulations
- DOT Regulations
- CPUC General Orders & Settlement Agreements
- Investigation Practices
- Workers' Compensation
- Integrated Disability Management
- Continuing Education

The plan and its accompanying template are used by a new CSO to determine what areas require additional skills or knowledge, if any.

Annual Development Plan Process

New holders of the CSO position, complete the on-boarding template to identify areas which require development and indicate how that development will occur.

Once the development activities are identified, they are entered into PG&E's development planning system, iConnect.⁵

John Higgins left PG&E in June 2018, before he could complete this training.⁶

Prior to and following the selection of John Higgins as CSO, there has been considerable turnover in the head of safety position, as shown in **Exhibit IV-2**. Francisco Benavides, the CSO until October 2021, had stronger safety credentials, but did not have a utility operations background.⁷

Exhibit IV-2 PG&E Safety Leadership 2012 - 2020

Head of Corporate Safety	Employee	Background	Dates
SVP of Safety and Shared Services	Desmond Bell	Former aviation industry expert with change management and process improvement expertise. Joined PG&E in supply chain.	Jan 2012 – Feb 2017
VP of Safety and Health	John Higgins	Joined PG&E in 2012 as Senior Director, Field Operations in PG&E's gas organization. Previously with National Grid Gas.	Feb 2017 – Jun 2018
Chief Information Security Officer and Interim Lead Safety	Bernie Cowens	Cyber security, information security, physical security, risk management, privacy, and compliance expert	Jun – Dec 2018
VP Safety, Health and Chief Safety Officer	Jon Franke	Power generation and nuclear operations	Jan – Jun 2019
Interim Safety, Health,	Jan Nimick	Currently VP, Power Generation at	June 2019 – Feb 2020

⁵ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

⁶ DR 921 Attachment 1.

⁷ <https://www.linkedin.com/in/francisco-benavides-24739243>

Head of Corporate Safety	Employee	Background	Dates
ECAP DOT (SHED) Lead		PG&E. Previously worked at Diablo Canyon as plant operator, shift manager, maintenance manager, operations director, station director, and senior director of engineering, technical and emergency services.	
SVP and Chief Safety Officer	Francisco Benavides	30 years of industrial safety, health, and environmental experience. Joined PG&E from Alcoa Corporation, where he most recently served as Vice President of Environmental, Health and Safety.	Mar 2020 – Oct 2021

Source: NorthStar's May 18, 2017, Report, LinkedIn, DR 1271.

Mr. Cowens followed Mr. Higgins but only held the role for six months as the Interim Lead. There was no documented plan for him to receive safety training.⁸ The next CSO, Mr. Franke, also held the position for only six months. There was no documented plan for him to receive safety training.⁹ The next interim CSO, Jan Nimick, held the position for eight months. There was also no documented plan for him to receive safety training.¹⁰

The most recent CSO, Mr. Benavides, moved into the role in March 2020. In contrast to the prior CSOs, Mr. Benavides has a lengthy career as a leader of safety in industrial organizations. However, he has no experience in either gas or electric utilities. The original NorthStar recommendation was for the Corporate Safety Officer to have both operations and professional safety experience. NorthStar is not aware of any plan to provide training on electric or gas utility operations to Mr. Benavides.¹¹ Mr. Benavides training in utility operations has been largely informal:

Mr. Benavides conducted weekly field visits for the first year to learn the business and to meet the front-line employees and leaders. He also met with leaders, union leaders, employees, and subject matter experts to learn the working knowledge of PG&E. As part of his standard work, Mr. Benavides conducts bi-weekly field visits.¹²

In response to NorthStar's request for PG&E to provide a copy of the training needs identified for Francisco Benavides in his on boarding process, PG&E provided a bio for Mr. Benavides and not a training or onboarding plan.¹³

⁸ IR 29, 8-27-2018.

⁹ IR 25, 9-7-2018.

¹⁰ IR 75, 6-18-2019.

¹¹ DR 1494, submitted on March 1, 2021, requested information on Mr. Benavides' training. PG&E has not yet provided a response.

¹² DR 1494.

¹³ DR 1494.

B. RECOMMENDATION IV-2

Recommendation

IV-2: The Corporate Safety Officer should report to the COO of the Utility and to the NOS Committee of the Board in the same manner that the head of Internal Audit reports to the Audit Committee of the Board in most public companies.

Background

At the time of the analyses leading to NorthStar's May 8, 2017, Report, neither the current nor the previous CSOs reported directly to the head of the utility or to the Board. PG&E management agreed with NorthStar's recommendation and implemented it prior to the issuance of NorthStar's report.

PG&E Reported Status

Complete. PG&E reported this recommendation as complete in its January 8, 2018, Prepared Testimony in I.15-08-019. In its First Quarterly Report, PG&E reported that Internal Audit had completed its review of PG&E's completion narrative.

Results/NorthStar Assessment

Implemented.

Discussion

Management recommended, and the Boards of PG&E Corporation and Pacific Gas and Electric Company adopted, revised charters for the Safety and Nuclear Oversight (SNO) Committee that reflected the reporting provisions recommended by NorthStar.¹⁴ PG&E's current bylaws state that the "Chief Safety Officer shall be empowered to report to the Chief Executive Officer and Safety and Nuclear Oversight Committee, in each case, of the Corporation and the Utility."¹⁵

NorthStar has attended most of the Board and committee meetings since its involvement with PG&E began. It is NorthStar's assessment that the CSO is a welcome participant at the most senior levels of discussion. When directors and senior management have questions about safety, they confer with Mr. Benavides.

¹⁴ First Quarterly Report.

¹⁵ PG&E's website – July 22, 2021.

C. RECOMMENDATIONS IV-3 AND IV-4

Recommendations

IV-3: Examine workload levels, potential morale issues and other demands to understand and mitigate the reasons for the high turn-over at the Sr. Director, Safety and Health position and throughout the Corporate Safety organization.

IV-4: Following the development of the safety strategy, review the structure, reporting relationships and staffing levels of the Corporate Safety organization to ensure PG&E has the resources necessary for strategy execution and proper coordination with/support for the LOBs.

Background

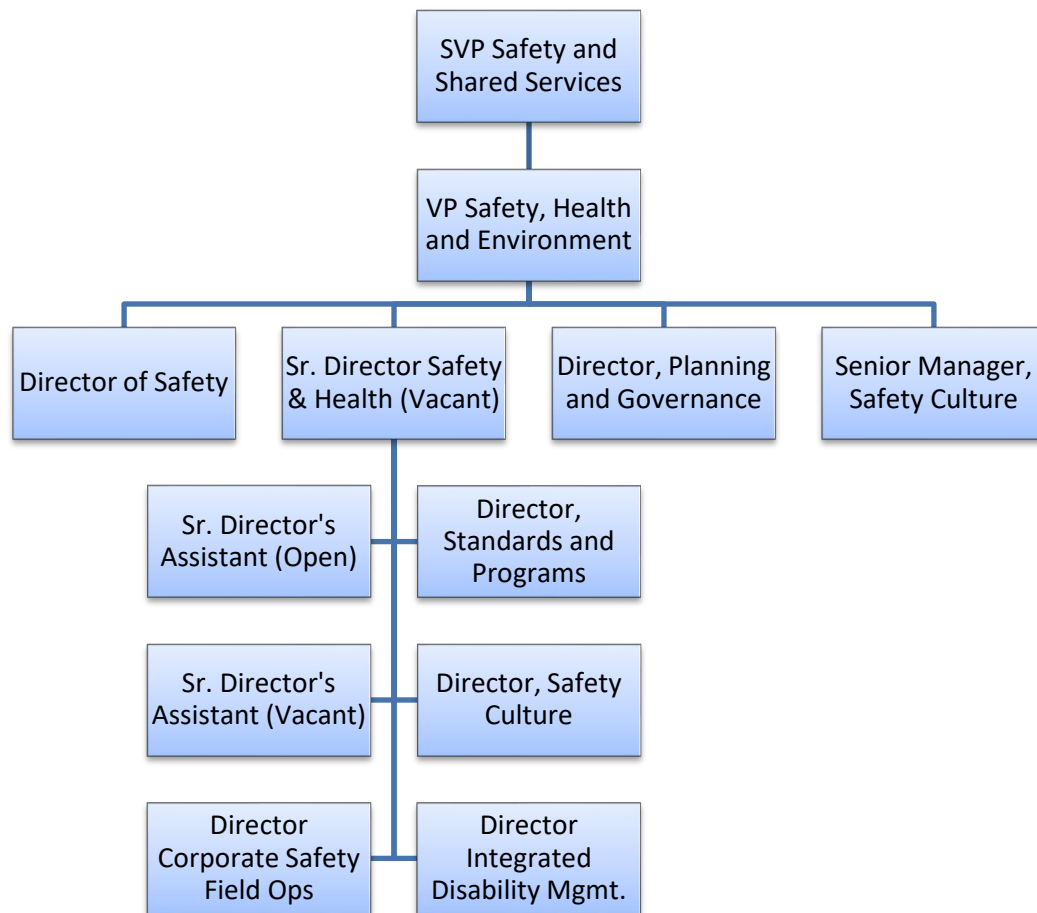
In its May 8, 2017, Safety Culture Report, NorthStar found that the Corporate Safety Organization, Safety, Health & Environment (SH&E), as it was referred to at the time, had been beset by substantial turnover in its middle management ranks (Senior Director and Director). During most of NorthStar's review, key positions remained vacant. Substantial turnover of management personnel contributes to morale issues within the employee base. There were employee reports of pressure to deliver results quickly, an overall lack of management support, the absence of safety credentials in key management positions, and the significant demands of the job due to inadequate staffing. These were all cited as contributors to the turnover within Corporate Safety.¹⁶

Exhibit IV-3 provides the organization structure during NorthStar's initial assessment. The Senior Director, Safety & Health (S&H) position, reporting to the VP of SH&E, was vacant during most of NorthStar's review. This is the first level that is primarily responsible for the overall safety and health of the organization. There was also significant turnover in this position between 2010 and 2016. During that time, the position was held by four different employees and was vacant for almost two years between 2012 and 2016.¹⁷

¹⁶ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, May 8, 2017, Final Report.

¹⁷ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, May 8, 2017, Final Report.

Exhibit IV-3
Safety, Health & Environment (SH&E) Organization Structure – As of July 13, 2016
[Note 1]



Note 1: Organization chart does not show the environmental positions.
 Source: DR 001, Supplement 001.

PG&E Reported Status

Complete. PG&E grouped NorthStar Recommendations, IV-3 and IV-4, and reported that the implementation of both, as well as its Internal Audit Department review of the company's completion narrative, was finalized, in its First Quarterly Report.¹⁸

Results/NorthStar Assessment

Undetermined. Current status cannot be determined due to organizational changes.

CSO Francisco Benavides introduced a different organizational structure which changed many reporting relationships. The current organization bears little resemblance to the one envisioned in the 2018 First Quarterly Report that reported completion. In addition, the

¹⁸ December 28, 2018, Quarterly Report, Safety Culture and Governance OIL.

organization will be affected by regionalization, and may be affected by the recent departure of Mr. Benavides.

Note: NorthStar's assessment is not specifically directed at the Field Safety Specialists which are discussed in Chapter V.

Discussion

In late 2016, PG&E filled the Sr. Director, S&H position.¹⁹ In response to NorthStar's recommendations in May 2017, PG&E assessed the current state of the S&H organization and identified the following issues:²⁰

- A lack of trust by the LOB on the delivery of safety acumen
- There is no clear end-to-end process for safety at PG&E
- There is lack of ownership of safety work across the enterprise
- The footprint of safety is not defined
- Safety is inconsistent throughout the enterprise
- Data integrity is compromised as too many systems report safety information
- Communication channels are not defined and are outdated for many safety programs
- Undeveloped safety values across PG&E
- Resources and talent do not support the execution of the Service Level Agreements.

As part of the assessment, PG&E defined its desired future state and evaluated the root cause of errors associated with previous efforts to address the organizational issues. To address the issues, S&H instituted daily calls, a calendar of Strategy and Engagement meetings (including S&H all-employee calls), and selected committees to improve collaboration within the organization and with the extended leadership team.²¹

As described in its completion narrative: "for each team to achieve the number of 1200 observations per month at a rate of 5 per week, PG&E needs to have a minimum of 6 safety specialists per manager (7 managers) for a total of 42 field safety specialists and 7 managers."²² Due to departures in PG&E personnel, NorthStar was not able to validate PG&E's analysis.²³

Analyses of Corporate Safety Investigations and SIF prevention were also performed. Based on these analyses, S&H was reorganized in three phases:

¹⁹ News Release and DR 925, Attachment 1, PG&E Organization as of 12/31/2016.

²⁰ DR 985 and Attachments.

²¹ Recommendation IV-3 and IV-4 Completion Narratives (December 28, 2018, Quarterly Report, Safety Culture and Governance OII), DR 985, DR 941, Attachments 11 and 19.

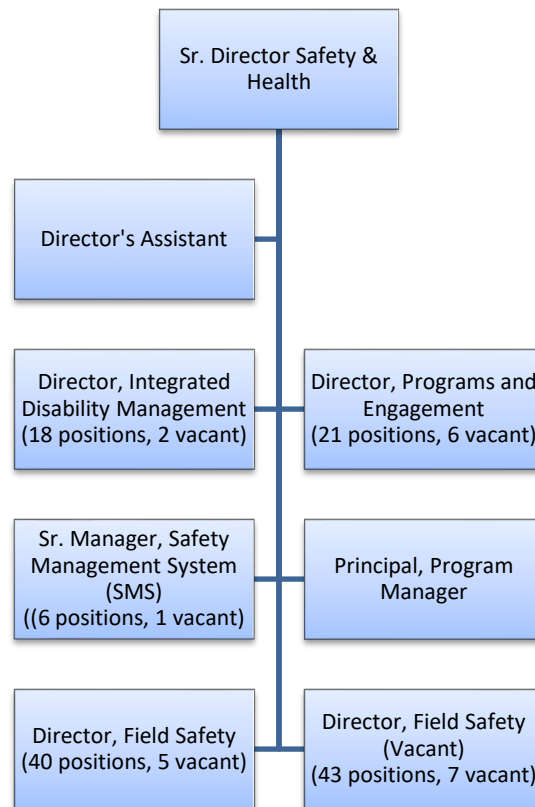
²² Recommendation IV-3 and IV-4 Completion Narratives (December 28, 2018, Quarterly Report, Safety Culture and Governance OII), DR 941, Attachments 11 and 19, DR 985 and Attachments.

²³ DR 941 Attachment 11 provided September 4, 2018, PG&E's Internal Audit review of Recommendation IV-3 implementation, noted that IA wasn't able to reconcile any of the support to the specific reference to "workload levels".

- In August 2017, a second Field Safety Director was added and the Field Safety Organization was split into North and South Regions.²⁴
- Effective October 1, 2017, 16 FSS moved from the LOBs to Corporate Field Safety.²⁵
- From March to April 2018, additional changes were made to better align with the *One PG&E OH&S Plan*.²⁶

S&H also established a staffing governance process, developed succession and talent sustainability plans, and added additional safety managers.²⁷ **Exhibit IV-4** provides the S&H structure as of April 13, 2018.

Exhibit IV-4
S&H Organization – As of April 13, 2018



Source: DR 985, Attachment 4.

²⁴ DR 985, Attachment 2.

²⁵ Recommendation IV-3 and IV-4 Completion Narratives (December 28, 2018, Quarterly Report, Safety Culture and Governance OII), DR 941 Attachments 11 and 19.

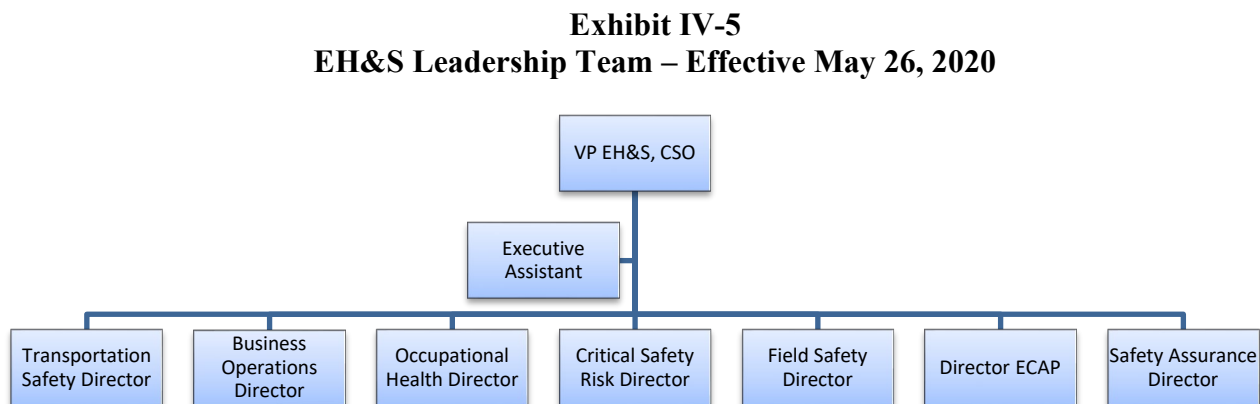
²⁶ Recommendation IV-3 and IV-4 Completion Narratives (December 28, 2018, Quarterly Report, Safety Culture and Governance OII), DR 941, Attachments 11 and 19.

²⁷ Recommendation IV-3 and IV-4 Completion Narratives (December 28, 2018, Quarterly Report, Safety Culture and Governance OII), DR 985, Attachment 4, DR 941 Attachments 11 and 19.

By July 23, 2018, the S&H organization totaled 413 positions.²⁸ In late 2019, the Sr. Director, S&H left PG&E. Since that time, the organization has undergone a number of changes, including the re-creation of a Field Safety organization composed of Field Safety Specialists (FSS) within electric operations. At one point the Electric Operations field safety group consisted of approximately 135 employees and contracted personnel.²⁹ The S&H Field Safety organization consisted of over 100 FTE.³⁰

Under the new CSO, Francisco Benavides, the Sr. Director position was eliminated.³¹ Following the development of the *2025 Workforce Safety Strategy*, two functions were added: Critical Risk and Assurance, and five positions were added to fulfill the need to fully implement the Strategy. The temporary Enterprise Safety Management System (ESMS) Director position was eliminated.³²

Exhibit IV-5 provides the revised EH&S organization structure.



Source: DR 1228.

The reorganization included the following shifts:

- Compliance and the Independent Safety Oversight Committee (ISOC) moved to the Assurance Department
- ESMS, Risk, Standards and Contractor Safety moved to the Critical Risk Department.
- Ergonomics moved to the Occupational Health Department.
- Motor vehicle safety moved to Transportation Safety Department.

During late 2020, the ESMS function was moved from Risk to Assurance, and in December 2020, the Electric Operations Field Safety Specialists (FSS) moved from Electric Operations to EHS.

²⁸ DR 892, Attachment 1.

²⁹ DR 1333 as of December 1, 2020

³⁰ DR 1082 Attachment 1, Field Safety 11-30-2019

³¹ DR 1236.

³² DR 1493.

CHAPTER V: FIELD OPERATIONS

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to PG&E's field operations. **Exhibit V-1** provides a summary of NorthStar's recommendations, their origin (NorthStar's May 8, 2017, Initial Safety Culture Assessment or its March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit V-1 Field Operations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
F-2	The need for clear definition of supervisory requirements, including an assessment of workload requirements, ongoing field monitoring efforts and time requirements, and associated staffing levels.	NorthStar's May 8, 2017, Report, Executive Summary	F-2, V-4, V-6 grouped in one implementation plan.	D
F-5	Greater coordination among the LOBs and with Corporate Safety to increase consistency, improve efficiencies, minimize operational gaps, and facilitate sharing of best practices.	NorthStar's May 8, 2017, Report, Executive Summary	V-1, V-2, V-5, F-5, IV-5, IV-6, IV-7 grouped in one implementation plan.	A
IV-6	Simplify and clarify the roles and responsibilities of the Corporate Field Safety Specialists (FSS) vis-à-vis the LOB FSS to eliminate duplication, and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.	NorthStar's May 8, 2017, Report, Chapter IV	F-5, IV-5, IV-6, IV-7, V-1, V-2, V-5 grouped in one implementation plan.	B
IV-7	Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure they are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.	NorthStar's May 8, 2017, Report, Chapter IV	F-5, IV-5, IV-6, IV-7, V-1, V-2, V-5 grouped in one implementation plan.	E
V-1	Improve processes used to evaluate and translate best practices and techniques from one LOB organizational unit to others. Focus LOB FSS roles and responsibilities on integrating best practices among all LOBs, facilitating the implementation of corporate safety initiatives, and improving safety practices and awareness across all organizational units.	NorthStar's May 8, 2017, Report, Chapter V	V-1, V-2, V-5, F-5, IV-5, IV-6, IV-7 grouped in one implementation plan.	A
V-2	NorthStar does not believe the FSS can be effective even in significantly great numbers given the geographic challenges associated with PG&E's service territory and the diverse job requirements. A more effective use of the FSS would be to have them focus on and support the first-line supervisors – foremen and crew leads.	NorthStar's May 8, 2017, Report, Chapter V	V-1, V-2, V-5, F-5, IV-5, IV-6, IV-7 grouped in one implementation plan.	B
V-3	Perform a broad reassessment of all safety programs and initiatives to evaluate overall effectiveness and make improvements, and eliminate scope overlap (e.g., the Corrective Action Program (CAP) vs. the Safety and Environmental Management System (SEMS) follow-up responsibility).	NorthStar's May 8, 2017, Report, Chapter V	V-3, F4, III-2, III-3 grouped in one implementation plan.	C

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
V-4	Reevaluate staffing, roles, responsibilities and work requirements to increase Supervisor's time in the field supervising crews.	NorthStar's May 8, 2017, Report, Chapter V	F-2, V-4, V-6 grouped in one implementation plan.	D
V-5	Increase the training requirements for LOB FSS. Existing OSHA training is somewhat generic and not sufficiently related to PG&E's public and occupational hazards.	NorthStar's May 8, 2017, Report, Chapter V	V-1, V-2, V-5, F-5, IV-5, IV-6, IV-7 grouped in one implementation plan.	E
V-6	Reevaluate the travel requirements placed on employees to reduce the overall mileage driven. Accelerate the use of mobile technology and electronic information exchange. PG&E employees drive a significant number of miles per year and are frequently called upon to support workload at great distances from their normal assigned locations.	NorthStar's May 8, 2017, Report, Chapter V	F-2, V-4, V-6 grouped in one implementation plan.	F
U-10	Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.	NorthStar's March 29, 2019 Update Report	Initially appeared to be classified as individual implementation plan.	G
U-11	Commit to a target level of dedicated time in supervisors calendars each week for time in the field; guidance will remain flexible for each LOB to take into consideration the different job functions and geographic work considerations.	NorthStar's March 29, 2019 Update Report	Implemented under existing plan	H
U-12	Transfer administrative tasks that can be done by office-based staff, such as scheduling of work, training, and paperwork review, from the Supervisor to the office-based staff.	NorthStar's March 29, 2019 Update Report	Implemented under existing plan	I
U-13	Formalize Gas, Electric, and Power Generation management expectations for supervisors spending time in the field and communicate techniques for how to reduce impediments in each LOB thereby increasing time in the field.	NorthStar's March 29, 2019 Update Report	Implemented under existing plan	H
U-14	Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized, as discussed in PG&E's January 8, 2018 Testimony (p. App 2A-4/Adobe p. 129/521).	NorthStar's March 29, 2019 Update Report	Individual implementation plan.	J
U-15	Reduce travel requirements for field personnel and supervisors who are frequently assigned to work or attend meetings outside their normal work locations.	NorthStar's March 29, 2019 Update Report	Initially appeared to be classified as individual implementation plan.	F

A. RECOMMENDATIONS F-5 AND V-1

Recommendations

F-5: Greater coordination among the LOBs and with Corporate Safety to increase consistency, improve efficiencies, minimize operational gaps, and facilitate sharing of best practices.

V-1: Improve processes used to evaluate and translate best practices and techniques from one LOB organizational unit to others. Focus LOB FSS roles and responsibilities on integrating best practices among all LOBs, facilitating the implementation of corporate safety initiatives, and improving safety practices and awareness across all organizational units.

Background

In its May 8, 2017, Safety Culture Assessment Report, NorthStar described the lack of coordination between PG&E corporate safety and PG&E field operations, differences in processes and approaches adopted by the LOBs, and the failure to share lessons learned and best practices across the LOBs. NorthStar's May 8, 2017, report also discussed the introduction of numerous corporate initiatives aimed at improving safety without a coordinated approach. NorthStar found that initiatives driven by the field or lessons learned within an LOB were not adequately transmitted and adopted across the organization to maximize the beneficial use of internal best practices.

NorthStar's conclusions were echoed by employee surveys (i.e., the Premier Survey) conducted in 2014 and 2016. The survey results reflected employee concerns regarding the overall lack of management direction. Nearly half of the survey respondents appeared to have some level of dissatisfaction with management's lack of clear direction, application of best practices, and failure to establish strong collaboration among different departments as shown in **Exhibit V-2**, taken from NorthStar's 2017 Report.

Exhibit V-2 Premier Survey Results

	2014	2016
Communication		
1. PG&E has tools in place that enable employees to easily share information	68%	66%
2. How satisfied are you with the information you receive from management on what's going on at PG&E?	59%	60%
3. Officers and Directors provide a clear direction for PG&E.		58%
Continuous Improvement		
4. The people I work with cooperate to get the job done.	84%	86%
5. Officers and Directors actively support applying best practices across different areas of the business.	51%	59%
6. I see people in different departments and groups collaborating with one another.	62%	57%

Source: DR 662, Attachment 001.

PG&E Reported Status

Complete.

PG&E grouped recommendations F-5, IV-5, IV-6, IV-7, V-1, V-2, and V-5 in one implementation plan and reported that the implementation was complete in its First Quarterly

Report dated December 28, 2018. PG&E also noted that its Internal Audit Department's review of PG&E's completion narrative had been completed in that same quarterly report.¹

Results/NorthStar Assessment

Not implemented.

PG&E has not focused on FSS roles and responsibilities, on integrating best practices among all LOBs, on facilitating the implementation of corporate safety initiatives, or on improving safety practices and awareness across all organizational units.

Discussion

PG&E grouped the implementation of recommendation V-1 with six other recommendations, but did not effectively address its substance. PG&E presented benchmarking studies and survey information covering diverse subjects such as safety incidents, injury and illness statistics, OSHA recordkeeping strategies, and organizational performance as best practice assessments during 2017 and 2018.² However, these studies and surveys did not address best practices that might actually improve PG&E's current safety regimen nor the appropriate FSS roles to facilitate those practices.

PG&E's efforts to evaluate and translate best practices among the LOBs have been weak and consist merely of providing a set of instructions, the posting of safety observations and the sharing of serious safety incidents. For example, PG&E's "report" example on best practices was a list of anecdotal comments that were noted as a best practice, including "rescue gear available" and "no people in the danger zone".³ Nowhere was it evident that PG&E ever evaluated what a best safety practice was and then employed a process to ensure that the best safety practices were being implemented and evaluated throughout the LOBs.

Asked to summarize its efforts during 2020 to evaluate best practices for the LOBs as well as the sharing of these best practices between LOBs, PG&E stated:

In preparation for collecting and distributing Best Practices during 2020, PG&E's Enterprise Health and Safety (EH&S) organization **distributed instructions** on 11/12/2019 and 11/14/2019 to all employees utilizing the PG&E Daily Digest, providing instructions **on how to collect and submit** Best Practices in the SafetyNet...

During 2020, **a report of all Best Practices submitted during each month was collected and distributed to leaders of all Lines of Business** during the first week of the following month so that the report could be cascaded to their employees...

¹ PG&E Safety Culture and Governance OII Quarterly Report December 28, 2018, Table 2, Page 16/309.

² DR 931.

³ DR 931.

Plans for 2021 include adding a permanent Best Practices discussion section to the agenda for the Employee Led Safety Council (ELSC), which is scheduled to be re-established in January 2021.⁴ [Emphasis added]

NorthStar is not aware of the existence of a specific employee-led safety council as of August 2021.

B. RECOMMENDATIONS V-2 AND IV-6

Recommendation

V-2: NorthStar does not believe the FSS [Field Safety Specialists] can be effective even in significantly greater numbers given the geographic challenges associated with PG&E's service territory and the diverse job requirements. A more effective use of the FSS would be to have them focus on and support the first-line supervisors, foremen and crew leads.

IV-6: Simplify and clarify the roles and responsibilities of the Corporate Field Safety Specialists (FSS) vis-à-vis the LOB FSS to eliminate duplication, and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.

Background

At the time of NorthStar's May 8, 2017, Safety Culture Assessment Report, there were both corporate FSS and LOB FSS positions. Ten corporate FSS supported Electric Operations, eleven supported Gas Operations, eleven supported Generation, and ten supported the other LOBs (Customer Care, Safety and Shared Services, and Information Technology).

PG&E Reported Status

Complete.

PG&E grouped recommendations F-5, IV-5, IV-6, IV-7, V-1, V-2, and V-5 in one implementation plan and reported that the implementation was complete in its First Quarterly Report dated December 28, 2018. PG&E also noted that its Internal Audit Department's review of PG&E's completion narrative had been completed in that same quarterly report.⁵

Results/NorthStar Assessment

V-2: Implemented. PG&E's Job Profile for FSS positions notes that they now support supervisors.⁶

IV-6: Not implemented.

⁴ DR 1331.

⁵ PG&E Safety Culture and Governance OII Quarterly Report December 28, 2018, Table 2, Page 16/309.

⁶ DR 1335.

Discussion

The roles and responsibilities of the various FSS employees have not been sufficiently clarified to address their diverse job requirements. PG&E has focused the FSS position to supporting the first-line supervisors, foremen and crew leads as recommended by NorthStar. Although PG&E has increased the number of FSS staff, this was not the result of a formal manpower evaluation or workforce management process. It appears to have been completed without any documented basis.

There have been multiple organizational changes affecting the LOB and Corporate FSS. Recently, all FSS resources were consolidated under EH&S. The new regionalization organizational structure will likely result in additional organizational changes and perhaps even more staff.

C. RECOMMENDATION V-3

Recommendation

V-3: Perform a broad reassessment of all safety programs and initiatives to: evaluate overall effectiveness and make improvements, and eliminate scope overlap (e.g., the Corrective Action Program (CAP) vs. the Safety and Environmental Management System (SEMS) follow-up responsibility).

PG&E Reported Status

Complete.

PG&E included NorthStar's recommendation V-3 in its "F-4" Implementation Plan combining it with III-2 (Reassess and stabilize the safety culture change initiatives), and III-3 (Develop a comprehensive safety plan), and reported the implementation complete in its First Quarterly Report submitted in December 2018.⁷ PG&E also reported that its Internal Audit Department had completed its review of PG&E's completion narrative in the First Quarterly Report.⁸

Results/NorthStar Assessment

Not Implemented.

Discussion

PG&E did not perform a broad reassessment of all safety programs and initiatives to evaluate overall effectiveness and make improvements, as recommended by NorthStar. Additionally, PG&E's completion narrative for this combined implementation plan does not

⁷ PG&E Safety Culture and Governance OII Quarterly Report, December 28, 2018.

⁸ PG&E Safety Culture and Governance OII Quarterly Report, December 28, 2018.

describe a broad reassessment of all safety programs and initiatives. The only mention of recommendation V-3 in the completion narrative is as follows:

Additionally, the Plan represents process improvements including eliminating duplication and increasing efficiencies in delivering safety programs. An example is the integration of SEMS and CAP systems to ensure safety related cause evaluation assignments are performed using the CAP and Serious Injury and Fatality standards.⁹

The majority of the existing safety initiatives were rolled into the *One PG&E Occupational Health and Safety Strategy*, with no apparent modification. The programs and initiative continue today, and there has not been a significant improvement in PG&E's safety performance.

SEMS and CAP are discussed in Recommendation X-1.

D. RECOMMENDATIONS F-2 AND V-4

Recommendation

F-2: The need for clear definition of supervisory requirements, including an assessment of workload requirements, ongoing field monitoring efforts and time requirements, and associated staffing levels.

V-4: Reevaluate staffing, roles, responsibilities, and work requirements to increase Supervisor's time in the field supervising crews.¹⁰

Background

Each operating LOB operates in an unforgiving work environment with inherent risks, such as: transporting a flammable substance under pressure, handling live electric circuits, working at heights, working in confined spaces, working with rotating equipment and driving a significant number of miles. NorthStar's May 8, 2017, Safety Culture Assessment Report highlighted the following:

- There had been a steady rise in employee lost workday (LWD) and OSHA-recordable injury rates. At the time, PG&E did not track or report contractor LWD or OSHA-recordable rates.
- Serious injuries and fatalities (SIF) were predominately related to field operations as opposed to centralized office functions such as management, administrative, or engineering.

Field-facing supervisors are often the most technically experienced and safety-conscious resources available within the existing organizational structure that can directly improve PG&E's safety culture in the field. During its initial Safety Culture Assessment, NorthStar

⁹ First Quarterly Report, Attachment 2-8.

¹⁰ Assessment of PG&E's Safety Culture May 8, 2017, Summary of Recommendations, Page I-13.

observed that field-facing supervisors had excessive administrative duties and numerous direct reports that limited the supervisors' ability to observe and encourage the safe practices of their crews while in the field. NorthStar recommended that PG&E reevaluate staffing, roles, responsibilities, and work requirements to increase Supervisor's time in the field supervising crews.

PG&E Reported Status

Complete.

PG&E merged recommendations F-2 and V-4 in one implementation plan and final approval from Internal Audit was obtained October 1, 2019.¹¹ PG&E noted that these improvements required a long-term effort and provided details of the implementation in Attachment 1 to the October 31, 2019, Quarterly Report:

July 1st is the start, and not the end, of this new way of leading. As stated above, the tools developed and deployed as part of Phase 1 are just that-tools. However, it is behavior that changes culture and these tools alone will not accomplish our desired outcomes. To that end, the Leader in the Field team will kick off a Phase II that will be coordinated with other corporate safety culture initiatives and inclusive of the following:

1. In partnership with Gas Lean Capability Center deliver facilitative training for all field facing leaders (Supervisors, Managers and Directors) on Leader Standard Work. Leader Standard Work is a documented set of actions, tools and behaviors that are incorporate in to daily, weekly or monthly deliverables to enable leaders to better manage time and focus on their most important assets-their people
2. In partnership with Corporate Safety, Human Resources, and in collaboration with the IBEW, re-emphasize Effective Coaching training concepts from Safety Leadership Development programs to field-facing leaders in Electric, Gas and Power Generation as determined by the business unit (all levels of leadership)
3. Review and recommend changes to compensatory time policies to ensure leaders are able to be in the field with their people.
4. Deploy Safety Leadership Development training for the officer and director team to introduce key concepts and tools on how to effectively role model our new way of leading.
5. Identify leaders who are already role models of the Leader Standard Work, Effective Coaching, and other desired safety leadership behaviors, and assign them as peer level mentors and coaches
6. Monitor adoption of leader in the field time keeping codes via monthly reporting dashboards to ensure all departments are increasing time in field and addressing identified roadblocks.

¹¹ PG&E Safety Culture and Governance OII Quarterly Report October 31, 2019, Page 5/18.

It is the team's expectation that these items will begin in July 2019, but take a significant amount of time to complete.¹²

Results/NorthStar Assessment

Not Implemented.

The Commission requested that NorthStar review the status of PG&E's implementation of this recommendation as part of its First Update Report. NorthStar found that PG&E's implementation of Recommendation V-4 suffered from insufficient attention by executive leadership resulting in delays and ongoing implementation gaps. NorthStar provided more specific recommendations (U-11 and U-13) in its March 29, 2019, Update Report to facilitate execution of Recommendation V-4. See sections H and I of this chapter for further discussion.

Discussion

To date, PG&E has not conducted any meaningful analysis of staffing, roles, responsibilities, and work requirements to increase Supervisor's time in the field supervising crews as specifically recommended.

- When asked to provide any quantitative analyses of supervisory administrative tasks and activities that are conducted in the office versus those that are being directed to be performed in the field for the Electric, Gas and Power Generation LOBs, PG&E stated: "As of this time, no time study or similar analysis has been performed to quantify the split of supervisory responsibilities which are administrative versus field-facing."¹³
- In general, PG&E has not completed any quantitative assessment of supervisory workload: "Aside from collaborative sessions with people leaders in the operating units (Power Generation, Gas Operations, Electric Operations), PG&E has completed no quantitative assessment of supervisory workload. Gas Operations has established Supervisor Standard Work guidelines to identify common core functions and expectations of front-line supervisors."¹⁴
- Asked to provide documentation to support PG&E's evaluation(s) of supervisor resource requirements by LOB from 2017 to date, PG&E only provided the following: "PG&E supervisor resource requirements across Electric, Gas, and Power Generation are guided by our HR guidance on spans and layers. We continue to focus on hiring additional leaders where our spans and layers are not met, confirming appropriate administrative tasks assigned, and monitoring time in the field."¹⁵

¹² PG&E Safety Culture and Governance OII Quarterly Fourth Report Attachment 1, Completion Narrative, October 31, 2019.

¹³ DR 1329.

¹⁴ DR 1328.

¹⁵ DR 1536.

NorthStar requested a description of field-facing supervisor roles and responsibilities, as well as any quantification of work level or resource requirements.¹⁶ PG&E provided the actual number of supervisors and sample job profiles including job responsibilities for Electric, Gas and Power Generation supervisors but no information on work level or resource requirements.

E. RECOMMENDATIONS V-5 AND IV-7

Recommendations

V-5: Increase the training requirements for LOB FSS. Existing OSHA training is somewhat generic and not sufficiently related to PG&E's public and occupational hazards.

IV-7: Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure they are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.

Background

In its May 8, 2017, Safety Culture Assessment Report, NorthStar found that PG&E employees lacked a consistent understanding of safety goals and objectives within LOB field operations, largely because there was limited uniformity of safety training across the corporate landscape. Furthermore, the greatest culture difference existed between the PG&E corporate safety organization and the various LOB field workforces.

NorthStar also noted that the field safety specialists (FSS) within the lines of business generally had operational expertise, but not specific safety credentials. At the time of NorthStar's review there were both Corporate Safety Field Safety Specialists (Corporate FSS) and LOB FSS:

- Corporate FSS were part of the Corporate Field Safety Operations group. They were organized by LOB and had knowledge of Cal/Occupational Safety and Health Administration (OSHA) regulations and how they applied to the LOB they supported. All of the corporate FSS were OSHA 30-certified in 2015 (this certification training was a one-time training). Ten Corporate FSS supported Electric Operations; eleven supported Gas Operations; eleven supported Generation; and, ten supported the other LOBs (Customer Care, Safety & Shared Services and Information Technology).
- LOB FSS were generally individuals with specific field expertise in the designated LOB operations and understanding of the work being performed (e.g., former linemen

¹⁶ DR 1537.

for Electric Operations). These individuals were not required to have Safety Specialist Certifications.¹⁷

PG&E Reported Status

Complete.

PG&E grouped recommendations F-5, IV-5, IV-6, IV-7, V-1, V-2, and V-5 in one implementation plan and reported that the implementation was complete in its first quarterly report dated December 28, 2018. PG&E discussed the sustainability aspects in its subsequent quarterly reports.¹⁸ PG&E also noted that its Internal Audit Department's review of its completion narrative was complete.

In its first Quarterly Report, PG&E stated:

It should be noted that recommendation V-5 referred specifically to the Line of Business Field Safety Specialists (LOB FSS). Those positions no longer exist since all such positions were transferred from the Lines of Business to Corporate Safety and Health effective October 1, 2017.¹⁹

Results/NorthStar Assessment

Not Implemented.

PG&E cannot absolve itself of the FSS safety training issues raised by NorthStar by merely changing its organizational structure. It must adequately address the substantive issue of job qualifications that NorthStar has raised, particularly given the frequent shifts in the FSS function between the LOBs and Corporate Safety.

Discussion

PG&E provided a 2019 summary of the training history for 59 active FSS employees (including Senior, Expert, and Associate levels).²⁰ This summary failed to show any increase in training for FSS employees nor an emphasis on safety.

- Nearly all the courses delivered were web-based training.
- Over 130 training courses were listed. Most courses covered work activities performed in the LOB. They were not directed at safety.
- Most courses listed required 30 minutes of participation, none exceeded 90 minutes.
- While all occupational training is designed to ensure that employees are working safely, only a limited number of training courses were directly related to Field Safety Specialists.

¹⁷ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, May 8, 2017, Final Report.

¹⁸ PG&E Safety Culture and Governance OII Quarterly Report, December 28, 2018, Table 2, Page 16/309.

¹⁹ PG&E Safety Culture and Governance OII Quarterly Report, December 28, 2018, Attachment 2-21.

²⁰ DR 1335, Attachment Field Safety Specialists Training History-2019.

PG&E provided a 2019 summary of the safety qualifications and certifications for 81 FSS resources.²¹ This summary failed to reconcile why 59 FSS had a “training history” as noted above, while the qualifications and certifications of 81 FSS resources were reported by PG&E for the same period. More importantly, it did not show superior qualifications and safety certifications for FSS personnel.

- Sixteen of the 81 FSS personnel did not have additional safety-related education, training, or certifications.
- Thirty-two FSS personnel, out of 81, had only OSHA-related education, training, or certifications.
- Less than half of the FSS resources received additional training or certifications as V-5 recommended.
- In addition, the departure of the previous Electric Operations senior safety leader resulted in the regular safety check-ins not occurring, which impacted training.²²
- Training in 2020 was also impacted by COVID-19: “In 2020, compliance [qualifications, certifications and training] was adversely affected by the COVID-19 prevention measures which prevented some classes from being offered.”²³

The Electric Operations LOB hired safety specialists without certifications or requirements to obtain certifications. This further undermined any serious attempt to implement a coordinated safety program. A training plan was not established for these new specialists, which also impacted execution of Recommendation V-5.

There were additional factors related to FSS positions that affected training.

- Safety Specialist positions have transferred to and from LOBs to Corporate Safety.²⁴
- FSS resources perform a variety of vastly different activities, many of which are corporate EH&S versus many that are field-oriented. Roles, responsibilities and gaps of the safety positions were not identified. The same job profiles for the FSS positions were used by all LOBs including EH&S.²⁵
- Qualifications and safety credentials/certifications were not completed.²⁶
- FSS Job Functions were not updated annually.²⁷

NorthStar asked PG&E to provide a comparison of the qualifications including professional certifications and training requirements of its Corporate FSS employees versus LOB FSS employees for each of the Electric, Gas and Generation LOBs at year-end CY2019, mid-year CY2020 and year-end CY2020. PG&E stated: “The same job profiles for

²¹ DR 1335, Attachment EHS Field Safety Qualifications and Certifications.

²² DR 1373 Safety Q3 2020 Certification Response.

²³ DR 1336.

²⁴ DR 1333.

²⁵ DR 1335.

²⁶ DR 1336, EHS Field Safety Qualifications and Certifications Attachment, and Field Safety Specialists Training History Attachments.

²⁷ DR 1335.

the FSS positions are used by all LOBs including EH&S, Electric Operations, Gas Operations and Power Generation.”²⁸

PG&E’s approach to FSS training appears to emphasize making FSS resources better qualified in field work functions rather than focusing on the hazards associated with the field work functions. ²⁹

In 2018, PG&E focused on increasing the field safety specialists’ knowledge of the work they were observing and created the following three trainings covering occupational safety:

- Safe-4510, Rubber Gloving, Climbing Basics and Emergency Field Assessments.
- SAFE-4511, Overhead and Underground Grounding.
- SAFE-4512, Gas Basics for Field Safety Professionals.

The above three trainings were assigned in 2018, 2019 and 2020 to the field safety specialists who observed those types of work.

In 2020, EH&S also identified that many Field Safety Specialists lacked recent training in other frequently observed work and profiled the following trainings to the Field Safety Specialists to close this gap:

- EQUIP-0143, Basic Rigging and Hand Signaling.
- SAFE-1102, Scaffolding Safety – Competent Person.
- PGN-9041, Confined Space for Power Generation.”³⁰

PG&E’s 2019 proposed course outline for Gas FSS states the following:

Problem Statement: Safety culture is at risk because Gas crews say FSS’ lack integrity at the jobsite because they lack gas operations knowledge and experience.

Proposed Solution: The Academy will deliver a one-day, hands on ILT (6 hours instructions, 2 hours lunch and breaks) wherein FSS will gain knowledge of gas operations and insight into the Gas crew experience.³¹

F. RECOMMENDATIONS V-6 AND U-15

Recommendations

V-6: Reevaluate the travel requirements placed on employees to reduce the overall mileage driven. Accelerate the use of mobile technology and electronic information exchange. PG&E employees drive a significant number of miles per year and are frequently called upon to support workload at great distances from their normal assigned locations.

U-15: Reduce travel requirements for field personnel and supervisors who are frequently assigned to work or attend meetings outside their normal work locations.

²⁸ Ibid.

²⁹ DR 1550, 1551 and 1552

³⁰ DR 1551

³¹ DR 1551, Gas FSS Course Outline

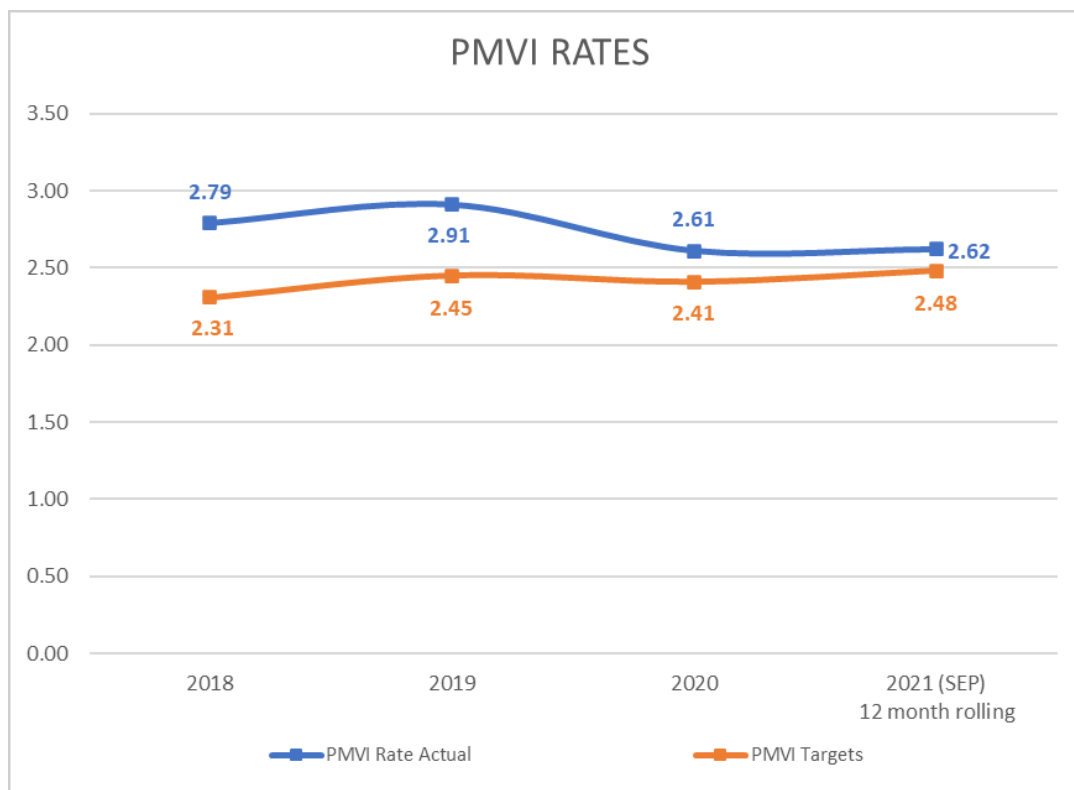
Background

PG&E employees drive between 100 million and 150 million miles each year.³² One of the most significant categories of safety incidents is motor vehicle incidents.

Motor vehicle safety is another focus area to address Preventable Motor Vehicle Incidents (PMVI) performance where we are benchmarking in the third quartile. Key actions to address this include improved training and better Vehicle Safety Technology (in cab alerts). We revamped our motor vehicle backing training for 2020 and have partnered with a new vendor to provide improved technology and data reporting on Vehicle Safety Technology.³³

Exhibit V-3 provides PG&E PMVI statistics from 2018 to October 31, 2021.

Exhibit V-3
PG&E Reported PMVI Statistics



Source: PG&E's November 1, 2021, Quarterly Report.

PG&E Reported Status

Complete.

³² PG&E Safety Culture and Governance OII Quarterly Report, April 26, 2019, Attachment 1, Page 31, and DR 1342.

³³ PG&E Quarterly Report, January 31, 2020, Executive Summary, Page 2.

PG&E's Quarterly Report dated April 26, 2019, stated:

Mileage information is collected as a part of our safety reporting process within the Safety and Health group. In the succeeding years (2017 & 2018) PG&E has shown steady year-over-year improvement in miles driven resulting from the following initiatives: improved technological capabilities, revisions in company policy, and reducing the size of our company vehicle fleet.

Given the progress shown, PG&E believes its current plan is effective and meets the letter and spirit of NorthStar's recommendation.³⁴

Results/NorthStar Assessment

Partially Implemented.

PG&E reported increases in annual mileage driven by LOBs from 2010 through 2019.³⁵ To date, PG&E has not been able to describe any quantitative analyses of travel requirements or initiatives undertaken by Corporate EH&S or the LOBs since mid-year 2017 specifically directed at reducing the number of miles driven other than those described above.³⁶

To date, PG&E descriptions of initiatives undertaken to reduce non-essential business travel includes teleconferencing, improved conference room facilities and reductions in the number of company vehicles.³⁷

Discussion

PG&E initially included recommendation V-6 in its F-2 implementation plan (Supervisor in the Field) and then noted its removal in the first Quarterly Report submitted December 28, 2018. In June 2018, recommendation V-6 had no Executive Sponsor or Implementation Owner.³⁸ PG&E categorized it as Lifecycle Stage: Draft Plan – green status.³⁹ On June 29, 2018, the status changed to amber as no Sponsor or Owner had been identified.⁴⁰ An Executive Sponsor was identified on September 7, 2018.⁴¹ An Implementation Plan Owner was identified on September 21, 2018.⁴²

PG&E's First Implementation Status Report indicated the plan was in progress. As of December 3, 2018, PG&E had not yet developed a plan and was continuing to review past initiatives.⁴³

³⁴ PG&E Quarterly Report April 26, 2019, Attachment 1-31

³⁵ DR 1207.

³⁶ DR 1340 and DR 1341.

³⁷ Ibid.

³⁸ DR 896, Attachment 33.

³⁹ Ibid.

⁴⁰ DR 896, Attachment 35, DR 941, Attachment 24.

⁴¹ DR 941, Attachment 26.

⁴² DR 1067, Attachment 2.

⁴³ DR 1067 and Attachments.

Four months after reporting that Recommendation V-6 was in progress, in April 2019, PG&E declared that its current plan was effective and met the letter and spirit of NorthStar's recommendation.⁴⁴

"In 2016, PG&E drove 150.1 million miles using company and personal vehicles. Mileage information is collected as a part of our safety reporting process within the Safety and Health group. In the succeeding years (2017 & 2018) PG&E has shown steady year-over-year improvement in miles driven resulting from the following initiatives: improved technological capabilities, revisions in company policy, and reducing the size of our company vehicle fleet. In 2017 PG&E drove 146.3 million miles, and in 2018 PG&E drove 143.3 million miles. That represents a 6.8-million-mile decrease over a two-year span and includes a reduction of 1.2 million miles driven in company vehicles.

Given the progress shown, PG&E believes its current plan is effective and meets the letter and spirit of NorthStar's recommendation. PG&E will continue to monitor miles driven as a part of its safety metrics within the safety dashboard distributed on a monthly basis by the Safety and Health group, to determine if additional or enhanced initiatives are warranted."

PG&E provided annual mileage data in both its second Quarterly Report and responses to NorthStar's data requests. The amounts reported are inconsistent as shown in **Exhibit V-4**. While there have been some significant decreases in mileage, there have also been increases. These differences call into question the efficacy of PG&E's initiatives noted above as well as the accuracy of PG&E's reported data.

Exhibit V-4
PG&E End of Year Mileage Reported for the Entire Corporation
(Miles in Millions)

Year	End of Year Mileage – 2nd Quarterly Report	Mileage – DR 1342	Mileage – DR 1540
2016	150.1	N/A	150.1
2017	146.3	138.4	146.3
2018	143.3	135.3	143.5
2019	N/A	140.4	140.1
2020	N/A	128.7 (projected)	128.1

Source: PG&E Safety Culture and Governance OII Quarterly Report, April 26, 2019, Attachment 1, Page 31, DR 1342, and DR 1540.

PG&E's reported mileage calculations show discrepancies that are greater than the claimed mileage reductions.

There was a discrepancy in the mileage reported for 2017 and 2018 in PG&E's response to DR 1342 and the table below. The explanation for this discrepancy is as follows.

PG&E tracks mileage from company, rental, pool and personal vehicles. Mileage from personal vehicles is collected through the Concur system which employees use for reimbursement of work-related expenses. The mileage from all these sources is added together and used when calculating the motor vehicle incident rate.

⁴⁴ PG&E Safety Culture and Governance OII Quarterly Report April 26, 2019 – Attachment 1 page 32.

In 2017, PG&E implemented a new policy which allowed personal mileage reimbursement only in excess of an employee's daily commute. Despite the change in reimbursements, employees were expected to report motor vehicle incidents which occurred for any business trip. **As a result, fewer miles were reported** but the risk exposure did not change. In response, PG&E, with approval from the board, **decided to estimate the personal mileage using historical data.** This was only done in 2017 and 2018. **In 2019, the company determined it was better to report only on mileage that could [be] audited and reverted to tracking only reported miles.** [Emphasis added]

Following the adoption of COVID-19 protocols and teleconference technologies, PG&E reduced its mileage levels in 2020.⁴⁵ This appears to be the only meaningful reduction in mileage.

G. RECOMMENDATION U-10

Recommendation

U-10: Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.⁴⁶

PG&E Reported Status

Complete.

Results/NorthStar Assessment

Not Implemented.

PG&E continues to exceed 1:20 direct reports for many field supervisors in Electric and Gas Operations.

Discussion

PG&E's supplemental implementation plan for Recommendation U-10, as of late 2019, provided the following:

2020 implementation efforts will benefit from a baseline adoption of LIF time in 2019. In 2020, the focus will be providing more explicit interventions for LIF time prioritization. This may include addressing leadership supervisory spans (e.g. 1:20 max), support staffing ratios, non-supervisory field time (work verification), and prioritization of competing commitments (leader standard work). This will also include continued sharing and adoption of LIF best practices between the targeted organizations, Gas, Electric, and Power Generation.⁴⁷

⁴⁵ DR 1342.

⁴⁶ NorthStar Update Report 3-29-2019, Page III-44.

⁴⁷ DR 1087, Attachment 14.

The timeline of activities for 2019 and 2020 included:⁴⁸

- Develop end-of-year supervisory spans report to identify Electric Operations, Gas Operations and Power Generation leaders out of span.
- Design and launch a management dashboard report.
- Report spans and time goals.
- Senior leaders with out of span supervisors submit revised HC proposal or justification.

Between 2016 and 2020, PG&E increased the number of supervisors in Electric Operations. Supervisor positions declined in Gas Operations and Power Generation, as shown in **Exhibit V-5**.

Exhibit V-5
Operational LOB Supervisor Counts

LOB	Number of Field Supervisors 2016	Number of Field Supervisors 2020	Change
Electric Operations	251	307	22.3% increase
Gas Operations	223	210	5.8% reduction
Generation	116	104	10.3% reduction

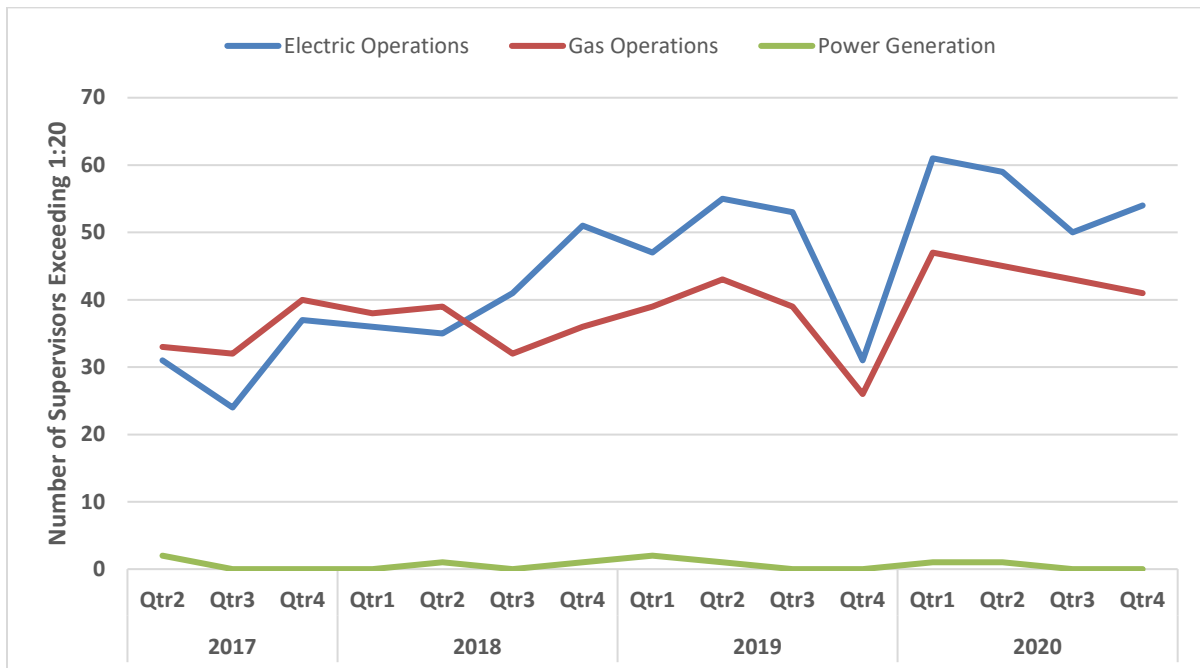
Source: DR 1338-Revised.

While there has been an increase in Electric Operations supervisor positions, it has not improved the span of control statistics. PG&E's assessment of completion and sustainability in its Quarterly Report fails to address underlying issues.⁴⁹ Electric and Gas Operations also increased the number of field-facing supervisors with direct reports exceeding 20. The increased number of supervisors with direct reports exceeding 20 is shown in **Exhibit V-6**.

⁴⁸ DR 1087, Attachment 14.

⁴⁹ DR 1087, Attachment 14.

Exhibit V-6
Span of Control Exceeding 1:20 Not Including “Special Considerations”



Source: DR 1096, Sup 2 and NorthStar analysis.

PG&E’s Corporation Procedure: HR-2010P-01, Table 2, limits the number of direct reports to 20 – the maximum number. Arguably this number should be much lower when field supervisors are on the front line and responsible for improving worker safety in the field. While PG&E management reports show that less than 10 percent of leaders are “out of range” (i.e., more than 20 direct reports), the “less than 10 percent” performance number excludes supervisors with “special circumstance” considerations.⁵⁰

Corporate Standard HR-2010S allowing “special considerations” has been used by PG&E prior to NorthStar’s safety culture evaluation.⁵¹ PG&E denotes a special consideration when a supervisor oversees bargaining unit foremen, thereby allowing them to exceed the span limit of 20 direct reports.

Teams with bargaining unit foremen or subforemen who are not identified as Leadership Track employees

a. These positions provide additional work oversight and technical training, but are not identified in formal leader counts. Examples include:

- (1) Electric general construction crew foremen
- (2) Gas general construction crew foremen
- (3) Transportation Services garage operations subforemen.⁵²

⁵⁰ DR 1087, Attachment 14 and DR 1096, DR 1503 and DR 1503, Attachment 1.

⁵¹ DR 1018, Attachment 1 (Rev: 2 12/12/2016), DR 1087, Attachment F2 and DR 1503, Attachment 1.

⁵² DR 1018 Attachment 1.

NorthStar has the highest regard for IBEW represented coworkers that provide work oversight. However, Recommendation U-10 specifically addresses the direct reporting span of control for Supervisors based on their roles, responsibilities and potential to improve safety. Foremen and crew leads are not supervisors.⁵³ Neither have specific spans of control or span of control requirements as delineated in PG&E's corporate procedures. Therefore, they are not shown on PG&E's spans and layers reports.

PG&E measures and tracks span of control for those employees who have a direct supervisory responsibility for other employees. Crew leads and foremen do not have direct supervisory responsibility (other than when they are temporarily upgraded to a supervisor position) and therefore have no specific span of control as measured and tracked by PG&E.⁵⁴

NorthStar notes that PG&E's use of special considerations is used to relieve management's obligations to adhere to Corporate Procedure HR-2010P-01 and support management reports that obfuscate compliance with NorthStar's safety culture improvement recommendations.⁵⁵

NorthStar conducted an analysis of the Gas Operations, Electric Operations and Power Generation spans of control using PG&E's SAP employee database.⁵⁶ NorthStar's analysis focused on field supervisor positions where direct reporting staff resources exceeded 1:20. **Exhibit V-6** (above) provides NorthStar's results ranging from the 2nd Quarter, 2017 through the end of 2020. NorthStar's data specifically and necessarily excludes the number of supervisors that PG&E has categorized as special considerations. NorthStar further verified its analysis against PG&E organization charts for similar reporting periods.⁵⁷

- Gas Operation and Electric Operation LOB spans of control have trended similarly, and the number of supervisors with spans of control beyond the policy limits has increased since 2017.
- Power Generation has remained constant with few positions exceeding a span of control greater than 1:20.

NorthStar pursued the implementation of recommendation V-4 and U-10 at length based on the analyses above. PG&E stated that the positions of "Associate Supervisor" and "Construction Manager" were added to relieve field supervisor's administrative duties so that more time would be available to be spent in the field.⁵⁸ In interviews, PG&E also referred to the positions as "Administrative Supervisors".⁵⁹ However:

- PG&E's F-2/V-4 implementation plan included adding an "Associate Supervisor" role to perform administrative tasks for field supervisors.⁶⁰ No Associate Supervisor

⁵³ DR 1087 and Attachments.

⁵⁴ DR 900.

⁵⁵ DR 1096, Attachments 1 – 11.

⁵⁶ DR 1096, Sup 2.

⁵⁷ DR 1236, Attachment 1.

⁵⁸ PG&E Quarterly Report April 26, 2019, page 10/91, and IRs 327, 377 and 378.

⁵⁹ DR 1607, 1608, 1609 and IRs 327, 377 and 378.

⁶⁰ PG&E Quarterly Report April 26, 2019, page 10/91.

- positions were filled by October 2019, and as of April 30, 2021, there were still none filled.⁶¹ As of October 8, 2021, no incumbents have this job title.⁶²
- PG&E does not have a job or position title of “Administrative Supervisor”⁶³ PG&E later stated that LOBs were considering an Administrative Supervisor position.⁶⁴
 - PG&E reported over 100 Construction Managers as of June 30, 2021.⁶⁵ PG&E organization charts provided as of April 30, 2021, showed that most Construction Manager positions were vacant, and those filled with named resources reported to positions higher than Supervisor, had no direct reports and performed either inspections or construction/contractor oversight.⁶⁶

H. RECOMMENDATIONS U-11 AND U-13

Recommendations

U-11: Commit to a target level of dedicated time in supervisors calendars each week for time in the field; guidance will remain flexible for each LOB to take into consideration the different job functions and geographic work considerations.

U-13: Formalize Gas, Electric, and Power Generation management expectations for supervisors spending time in the field and communicate techniques for how to reduce impediments in each LOB thereby increasing time in the field.

Background

PG&E’s implementation of NorthStar Recommendation V-4 was incomplete as noted in NorthStar’s First Update Report, dated March 17, 2019.⁶⁷ To facilitate completion NorthStar issued Recommendations U-11 and U-13.

PG&E Reported Status

Complete.

PG&E reported that Recommendation U-11 and U-13 were completed and “Implemented Under Existing Plan” in January 2021.⁶⁸ However, the “existing plan” was for Recommendation V-4, which was reported as complete in PG&E’s April 26, 2019, Quarterly Report.

⁶¹ DR 1096, DR 1236, Attachment 1, DR 1540 Attachment 1, and DR 1560.

⁶² DR 1607.

⁶³ DR 1576.

⁶⁴ DR 1608 and PG&E’s Matrix on Second Update.

⁶⁵ DR 1576 and DR 1609 Attachment 1.

⁶⁶ DR 1560.

⁶⁷ NorthStar Update Report 3-29-2019, Page III-36.

⁶⁸ PG&E Quarterly Report January 29, 2021, Table 2 – Matrix of Additional NorthStar Recommendations and PG&E’s Implementation Status, Page 10.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E formalized Gas Operations, Electric Operations, and Power Generation management expectations for supervisors spending time in the field and communicated techniques for how to reduce impediments in each LOB. The corporate Leader in the Field Standard (GOV-1039S) states that Field Supervisors should aspire to spend, on average, 50% of their working hours in the field with their people.⁶⁹ While PG&E committed to a target level of dedicated time in supervisor's calendars each week for time in the field, this reported time also includes a variety of non-supervisory activities, including drive time.

- The corporate Leader in the Field Standard (GOV-1039S) states that Field Supervisors should aspire to spend, on average, 50% of their working hours in the field with their people.⁷⁰ Activities coded as 1040 – Field Working Time include: observing employees, technical work training, safety summits and grassroots meetings, driving observations, driving time to/from/between job sites, and additional permissible activities.
- According to PG&E, throughout 2020, it has tracked the self-reported “Field Working Time” of frontline leaders in Gas Operations, Electric Operations and Power Generation. Leader in the Field (LIF or LITF) time is self-reported into the central timekeeping system by the supervisors and managers in scope.
- Reported time in the field includes time spent explicitly commuting to and from job sites. The Leader in the Field dashboard is updated as employees submit their time report, and then reviewed monthly. Throughout 2020, PG&E observed continuing improvement in LIF participation, as shown in LITF Executive Reports. Since late 2020, Power Generation, Electric Operations, and Gas Operations have all met the aspirational LIF time thresholds outlined in the guidance document.⁷¹

I. RECOMMENDATION U-12

Recommendation

U-12: Transfer administrative tasks that can be done by office-based staff, such as scheduling of work, training, and paperwork review, from the Supervisor to the office-based staff.⁷²

⁶⁹ DR 1330, Attachment - GOV-1039S.

⁷⁰ Ibid.

⁷¹ DR 1330.

⁷² NorthStar Update Report 3-29-2019, Page III-45.

Background

In response to the deficiencies observed in PG&E's implementation of NorthStar Recommendation V-4, NorthStar provided more specific recommendations in its March 29, 2019, Update Report to facilitate execution of the supervisory time in the field recommendations.

PG&E Reported Status

Complete.

Results/NorthStar Assessment

Not Implemented.

Discussion

PG&E's implementation summary of Recommendation U-12 provided December 17, 2019, failed to show administrative tasks transferred from supervisors to office-based staff.⁷³

PG&E has not performed a time study or similar analysis to quantify the split between supervisory activities that are administrative versus those that are field-facing.⁷⁴ PG&E's efforts to move administrative tasks away from field-facing supervisors to other resources for the purpose of increasing supervisor's time in the field have been minimal.⁷⁵ Gas Operations and Generation did not implement this recommendation. According to PG&E:

- "Gas Operations reviewed administrative tasks and confirmed that they belong with a supervisor."⁷⁶
- "Power Generation has made progress in reducing the number of required meetings for supervisors; however, administrative tasks in general have not been removed from field supervisor task lists."⁷⁷
- Electric Distribution created an Operation's Supervisor role in August 2019 to offload administrative tasks. However, there is only one Electric LOB Distribution Operations Supervisor as of October 2019.⁷⁸ The Electric Distribution Operations Supervisor duties include incidental tasks and activities – but do not include activities known to consume the bulk of field-facing supervisor's administrative time.⁷⁹

⁷³ DR 1087, Attachment F2, Attachments 24 through 28.

⁷⁴ DR 1329.

⁷⁵ DR 1474.

⁷⁶ DR 1474.

⁷⁷ DR 1474.

⁷⁸ DR 1096, Spans and Layers, Attachment 11.

⁷⁹ DR 1474.

J. RECOMMENDATION U-14

Recommendation

U-14: Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized, as discussed in PG&E's January 8, 2018 Testimony (Page App. 2A-4/Adobe Page 129/521).

Background

In response to the deficiencies observed in PG&E's implementation of NorthStar Recommendation V-4, NorthStar provided more specific recommendations in its March 29, 2019, Update Report to facilitate execution of the supervisory time in the field recommendations and increase field-facing supervisor's time in the field with crews.

PG&E Reported Status

Incomplete.

PG&E reported that Recommendation U-14 was "Plan in Progress" in its Quarterly Report dated July, 2021.⁸⁰ The format of the November 2021 Quarterly Report changed, and it is not clear whether the recommendation is considered complete.

Results/NorthStar Assessment

Not Implemented.

PG&E does not believe that this recommendation should be implemented as noted in PG&E's Matrix on Second Update – fact verification.⁸¹

Discussion

NorthStar requested a description and support for the implementation of the recommendations included in NorthStar's First Update Report dated March 29, 2019.⁸² PG&E provided a thread of emails during September through November 2019 that discussed field work review.⁸³ Electric Operations appeared to be considering having supervisors review the work while in the field. Gas Operations input/feedback was not apparent. Power Generation indicated that it was not an issue as completed work was reviewed by operations staff.⁸⁴

⁸⁰ PG&E Quarterly Report April 30, 2021, Table 2 – Matrix of Additional NorthStar Recommendations and PG&E's Implementation Status, Page 11.

⁸¹ PG&E Matrix on Second Update report fact verification 9-10-2021.

⁸² DR 1087.

⁸³ DR 1087, Attachment 32.

⁸⁴ DR 1087, Attachment 33.

NorthStar requested quantitative analyses of supervisory administrative tasks and activities that are conducted in the office versus those that are being directed to be performed in the field for the Electric, Gas and Generation LOBs. PG&E responded: “As of this time, no time study or similar analysis has been performed to quantify the split of supervisory responsibilities which are administrative versus field-facing.”⁸⁵

NorthStar requested documentation on any quantitative workload or organizational analyses that supports levels of field supervisor resources. PG&E’s response stated:

As of the end of 2020, PG&E has not performed quantitative analysis or a time study. Leader in the Field (LIF) requires the time reporting of supervisors and managers. However, PGE has not compared the incident rates of leaders with differing levels of LIF time. Now that an entire year of LIF has closed, such a retrospective study of 2020 coupling LIF time reporting and safety incident rate could be supported by PG&E.⁸⁶

⁸⁵ DR 1329.

⁸⁶ DR 1339.

CHAPTER VI: BUDGETING AND SPENDING

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to budgeting and spending. **Exhibit VI-1** provides a listing of NorthStar's recommendations, their origin (NorthStar's May 8, 2017, Initial Safety Culture Assessment or its March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit VI-1 Budgeting and Spending Recommendations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
III-2	Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.	NorthStar's May 8, 2017 Report, Chapter III.	Included in F3 along with III-3 and V-3.	C
III-4	Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.	NorthStar's May 8, 2017 Report, Chapter III.	Included with VI-2.	C
VI-1	Develop a method of separating "safety" expenditures from routine reliability and integrity expenditures. This may occur as part of the CPUC's Risk Assessment Mitigation Phase (RAMP) process.	NorthStar's May 8, 2017 Report, Chapter VI.	Individual implementation plan.	A
VI-2	Develop business case support and a record of management approval for safety initiatives in accordance with PG&E's Project Approval Procedure.	NorthStar's May 8, 2017 Report, Chapter VI.	VI-2 and III-4 grouped in one implementation plan.	C
VI-3	Develop a method for weighting the value of management-initiated safety programs comparable to the Risk Informed Budget Allocation (RIBA) but focused on management and training.	NorthStar's May 8, 2017 Report, Chapter VI.	VI-1 and VI-3 grouped into one implementation plan.	C
VI-4	Move forward with planned implementation of the Power Generation IPP Portfolio Planning and Management (PPM) system for all operational LOBs.	NorthStar's May 8, 2017 Report, Chapter VI.	Individual implementation plan.	D
VI-5	Continue efforts to better link IPP Session D to the Session 1 and 2 processes.	NorthStar's May 8, 2017 Report, Chapter VI.	Individual implementation plan.	B

A. RECOMMENDATION VI-1

Recommendation

VI-1: Develop a method of separating “safety” expenditures from routine reliability and integrity expenditures. This may occur as part of the CPUC’s Risk Assessment Mitigation Phase (RAMP) process.

Background

At the time of NorthStar’s original report, all field work was reported as “safety” unless it was specifically for a new service connection. This significantly overstates the amounts being spent on safety as most people would understand the term and makes it difficult to ensure safety is being appropriately prioritized relative to other expenditures. A team from PG&E was working to develop a more accurate process of identifying safety-related expenses. On December 21, 2016, in response to a NorthStar data request, PG&E stated:

PG&E manages the majority of our costs through classifications called Major Work Categories (MWCs). These MWCs illustrate the types of substantive work being undertaken and the purposes for which that work is being done. As a preliminary matter, PG&E’s safety initiatives often have overlapping benefits in terms of reliability. The reverse is true as well. Hence, it is common for safety-related work to have reliability benefits, and sometimes vice versa....¹

PG&E Reported Status:

Complete. PG&E reported this as complete in its January 8, 2018, Prepared Testimony in I.15-08-019.

Results/NorthStar Assessment

Partially Implemented. PG&E has supplied descriptions of changes to its cost categorization in some areas that better identify safety-related expenses and capital. However, NorthStar cannot determine from the information supplied how extensive the changes to date are, nor how much work remains to be done.

Discussion

In response to Data Request (DR) 1564, on June 8, 2021, PG&E stated:

Since that time (its response to DR 749 in December 2016) PG&E has been undertaking an effort to redefine many of its Maintenance Activity Type (MAT) codes to improve identification of safety related work from other aspects of field work within Major Work Categories (MWCs) for its gas and electric operations business units.²

¹ DR 749.

² DR 1564.

In that same response, PG&E provided examples of how it has used the MAT codes to identify capital and expense work as safety-related; however, PG&E did not indicate the extent of its MAT code modifications, or whether additional activities require redefined MAT codes to segregate safety-related programs from other work within an MWC. Moreover, PG&E has not redefined the MAT codes for the Power Generation field work safety-related activities.

B. RECOMMENDATION VI-5

Recommendation

VI-5: Continue efforts to better link IPP Session D to the Session 1 and 2 processes.

Background

During the 2016/2017 period, PG&E had an annual integrated planning process with four basic steps:

- **Executive Guidance (January)** – The initial step in the annual planning and budgeting process was the Executive Guidance forum occurring in January. In this step, PG&E's CEO and Presidents established company-level goals and objectives for the upcoming five-year planning horizon.
- **Session D (April)** – At the annual Session D meeting, senior officers discussed: 1) the top risks for the company and for each LOB, 2) risk reduction or mitigation progress to date, 3) strategies to manage any risk mitigation challenges, 4) future risk management plans, and 5) areas where collaboration across LOBs or additional resources may be required to manage risk.
- **Session 1 (July)** – Following Session D, each LOB developed its own 5-year operating plan (also known as its S-1 submission) to achieve the Company's and the LOB's strategic goals. At the S-1 meetings, the Company's CEO and senior officers from every LOB met to discuss and understand each other's goals, strategies, and priorities. At the completion of the S-1 meetings, the Company's leaders agreed on the strategic plans and the estimated funding for each LOB to achieve the Company's strategic goals.
- **Session 2 (October)** – The objective of the S-2 financial prioritization meeting was a final set of work and budget targets for each LOB for the coming year. Following Session 1, each LOB engaged in the Session 2 process to develop a detailed 2-year work plan to execute goals, strategies, and priorities agreed upon during the S-1 process.³

In its May 8, 2017, Safety Report, NorthStar found that there was not always a direct connection between the risks identified in Session D and the development of LOB project portfolios. The risks identified in Session D did not directly drive the selection of the projects addressed in Sessions 1 and 2. The LOBs generally started the planning process

³ NorthStar Final Report, pp. VI-2-3.

prior to the identification of top risks in Session D. The LOBs' investment planning was driven by Risk Informed Budget Allocation (RIBA) scoring and other considerations.

PG&E Reported Status

Complete. PG&E reported that key milestones were complete in its December 28, 2018, Quarterly Report. PG&E reported that its Internal Audit Department's review of the completion narrative was complete in its April 26, 2019, Quarterly Report.

Results/NorthStar Assessment

In process. PG&E took steps to integrate risk factors into its investment planning, but did not complete the effort before it modified the overall investment planning process. PG&E is currently revamping its IPP Policies, Standards and Procedures into a newly formulated Operating Rhythm process and will use a Risk-Based Portfolio Planning Framework to integrate risk into the new process.

Discussion

PG&E's Recommendation VI-5 Completion Narrative, issued in April 2019 in its Second Quarterly Report, cited some efforts that had been made to better link Session D risks to LOB investment planning, but also acknowledged there was further work to do:

Although PG&E has made progress with further integration of risk factors into the investment planning process, EORM initiated a project during 2018, to enhance the existing RIBA process in collaboration with the LOB Investment Planning teams. The goal of the project (RIBA 2.0) is focused on improving risk reduction values for projects and programs considered in PG&E's investment planning decisions, essentially building a bridge between PG&E's RIBA process and the operational risks in the LOB-specific risk register.⁴

PG&E did not complete the RIBA 2.0 project. In response to a 2021 NorthStar data request, PG&E explained that based on commitments made in the Safety Model Assessment Proceeding (SMAP) Settlement Agreement, it decided not to move forward with the RIBA 2.0 project. Instead, PG&E's Utility Risk Standard 5001S2 and Utility Risk Procedure 5001P-013 were updated to be consistent with the Multi-Attribute Value Function (MAVF) framework agreed to in the SMAP Settlement Agreement.⁵

In its Ninth Quarterly Report, issued January 29, 2021, PG&E explained that it is transitioning its IPP to the Operating Rhythm process. The new Operating Rhythm approach will replace the four IPP steps (described above) with a 5-year plan, and 24-month rolling plan that is refreshed every three months. PG&E will manage performance against the 15-month plan by monitoring KPIs and major initiatives. There are monthly meetings to govern performance against the plan.⁶

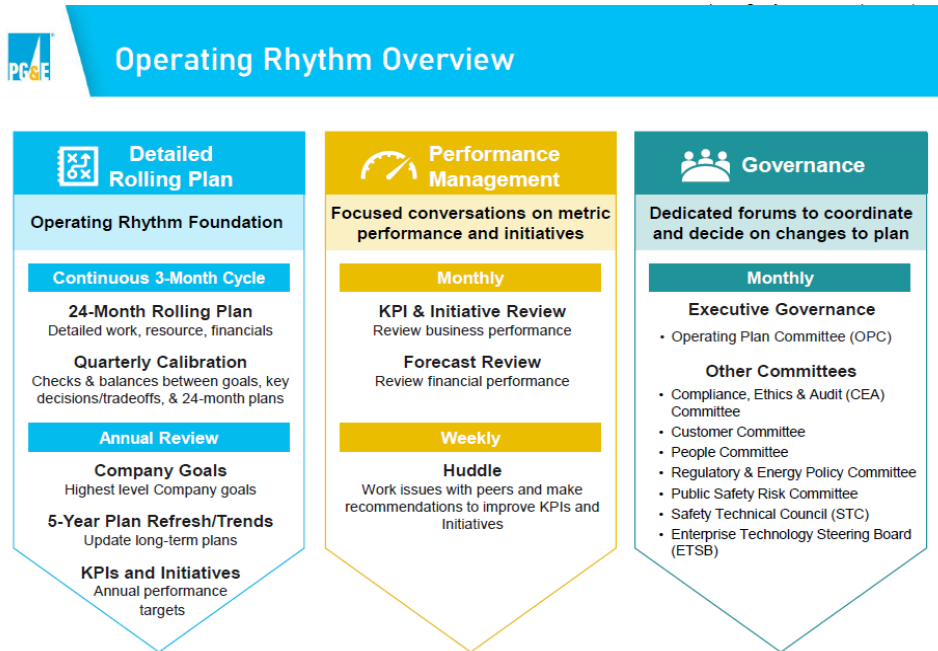
⁴ Recommendation VI-5, Completion Report, 2nd Quarterly Report, April 2019.

⁵ DR 1401.

⁶ DR 1242, Operating Rhythm Officer Overview 20200812.

An overview of PG&E's planned Operating Rhythm process is shown in **Exhibit VI-2**.

Exhibit VI-2 Overview of PG&E's Planned Operating Rhythm Process



Source: DR 1506.

In its Tenth Quarterly Report, issued April 28, 2021, PG&E stated that Enterprise Risk Management had engaged with Business Finance to integrate risk into the new process, but provided no information regarding the status of this effort. In its September 2021 verification comments, PG&E further explains that there is ongoing work to roll out a Risk-Based Portfolio Planning Framework (RBPPF) to replace RIBA and the originally planned RIBA 2.0 as a means to incorporate risk into the financial planning process.⁷

C. RECOMMENDATIONS VI-2, VI-3, III-2, AND III-4

Recommendations

VI-2: Develop business case support and a record of management approval for safety initiatives in accordance with PG&E's Project Approval Procedure.

VI-3: Develop a method for weighting the value of management-initiated safety programs comparable to the Risk Informed Budget Allocation (RIBA) but focused on management and training.

⁷ PG&E Fact Verification.

III-2: Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.

III-4: Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.

Background

In its May 8, 2017, Safety Report, NorthStar found that PG&E initiated numerous safety initiatives without a comprehensive plan, resulting in initiative overload. Moreover, PG&E did not prioritize its initiatives to ensure that the most critical initiatives were identified and implemented first before establishing additional ones. Different initiatives were dependent on the same leaders for design, approval and implementation resulting in “limited managerial bandwidth” and initiative fatigue. NorthStar recommended that PG&E develop methods to determine the relative values of safety initiatives similar to the processes the company had in place when NorthStar’s May 8, 2017, Report was issued – the Integrated Planning Process (IPP) and the RIBA Process.

As part of the IPP, PG&E’s operational LOBs used the RIBA framework to evaluate and prioritize their work portfolios. The LOBs determined a RIBA score for each project, considering the project’s impact on safety risk, reliability risk, and environmental risk. PG&E further evaluated whether the investment was mandatory, a compliance requirement, due to external commitments, interrelated with other projects, work requested by others, or capacity-related.⁸ The RIBA process was designed to evaluate the risk of not undertaking a particular project and to also ensure that those projects which are highest ranked are given priority consideration in the budget allocation process. NorthStar’s May 8, 2017, Report also found that PG&E had inadequate project approval documentation for many safety initiatives that were less than \$20 million. This is in spite of the fact that PG&E’s Project Approval Procedure required a detailed business case for projects greater than or equal to \$1 million. Projects \$20 million and greater were required to develop a Major Project Business Case for approval, including a description of: the project’s goals, the justification for initiating it, the strategy to complete it, and its overall scope. The procedure was to also include the Executive Project Committee’s review and approval.⁹

PG&E Reported Status

Complete. PG&E grouped NorthStar’s Recommendation III-2 with NorthStar’s Recommendations F-4, III-3, and V-3 in one implementation plan and reported the Internal Audit Department’s review of the completion narrative was complete in its First Quarterly Report dated December 28, 2018. PG&E grouped NorthStar Recommendations VI-2 and III-

⁸ NorthStar Final Report.

⁹ NorthStar Report, p. VI-24.

4 in one implementation plan and reported the key milestones complete in its December 28, 2019, Quarterly Report, and the Internal Audit review complete in its April 26, 2019, Quarterly Report. PG&E reported NorthStar Recommendation VI-3 complete (Internal Audit review complete) in its April 26, 2019, Quarterly Report.

Results/NorthStar Assessment

Not Implemented. NorthStar's March 29, 2019, Update Report found that PG&E did not perform a detailed review of the costs and effectiveness of the existing initiatives as NorthStar had envisioned in Recommendation III-2, and at that time PG&E did not have the ability to effectively "risk stack" the various initiatives. It was expected that PG&E would attain that ability through the implementation of an L-Gate project management governance process and its requirement for risk-spend efficiency (RSE) calculations. However, PG&E did not fully implement the L-Gate project management governance process. Implementation of the L-Gate project management governance process was the basis for PG&E's completion reports for Recommendations VI-2, VI-3, and III-4.

Discussion

In the March 29, 2019, Update Report, NorthStar found that in developing the *One PG&E Occupational Health and Safety Plan*, PG&E did not perform a detailed review of the costs and effectiveness of the existing initiatives as NorthStar had envisioned in Recommendation III-2. At that time, PG&E did not have the ability to effectively risk stack the various initiatives and was just implementing the L-Gate process.¹⁰

In 2017 – 2018, PG&E developed a new project governance framework for safety projects. As explained by PG&E, the goal was to align safety initiatives across the LOBs. At that time, safety was decentralized and lacked an effective governance structure for consistent implementation of safety initiatives across the LOBs.¹¹ An overview of this L-Gate project process was depicted in NorthStar's March 29, 2019, Update Report and is replicated as **Exhibit VI-3** below. As shown in **Exhibit VI-3**, as part of the L-Gate process, each project would have a business case that includes an RSE calculation to help determine the value of the initiative. Each project would also have established performance measures included as part of the business case, including what metric will be improved and how much improvement was expected.

¹⁰ NorthStar Update Report, p. 27.

¹¹ DR 1526.

Exhibit VI-3
PG&E's L-Gate Project Governance Process in 2018

Gate	L0	L1	L2	L3	L4	L5
Description	Idea Generated	Estimated	Validated	Planned	Implemented	Realized
Phase	Screen	Validate and Assess	Business Case for Impact and Cost	Implement	Track Impact	Benefits and Measured and Confirmed
Gate Exit Deliverable	• Intake Submission	• Business Case • Stakeholder ID	• Project Charter Sign-Off • High Level Risks and Mitigation Plan • Risk Spend Efficiency (RSE) Assessment	• Project Plan • Stakeholder Engagement Plan • Communication Plan	• Implemented Project Plan • Up to Date KPIs, RSE • Engagement/Communication Plan Status • Transition from Project to Operations	• Benefits measured and confirmed as part of S&H plan • Project close-out • Updates to Operations Plan
Cadence	Weekly Project Management Review	Weekly screen by S&H leadership	Bi-monthly review in Wednesday safety call	Monthly ESC Meeting	Monthly ESC Meeting or bi-monthly safety call	Monthly ESC Meeting or bi-monthly safety call
Sign-Off	Sr. Manager of Programs Safety & Health (S&H)	Sr. Director – S&H	Bi-Monthly Safety Call, VP-S, H & ECAP	ESC Leadership Consensus	Bi-monthly Safety Call or ESC per VP-S, H & ECAP discretion	Bi-monthly Safety Call or ESC per VP-S, H & ECAP discretion

Source: DR 997 Attachment 1.

Note: ESC Meeting refers to the Enterprise Safety Committee Meeting that was held monthly in 2018.

NorthStar's March 29, 2019, Update Report acknowledged that PG&E had developed the L-Gate project governance process. However, NorthStar could not assess the process effectiveness as PG&E was only in the initial implementation stage during NorthStar's fieldwork.¹²

According to PG&E, the L-Gate project governance process was “never fully implemented for safety initiatives due to the changeover in the Safety, Health, ECAP and DOT (SHED) VP position; between 2017 to March 2020, there were four different SHED VPs.”¹³ In March 2021, PG&E stated that it planned to retire administrative procedure SAFE-10004S – Conduct of Project and Initiative Governance which documented the L-Gate process.¹⁴ PG&E states that new initiative will be approved by the Chief Safety Officer and appropriate executives, but provided no documentation regarding this process.¹⁵

As explained by PG&E, the development of safety initiatives begins with the review of key performance indicators to identify areas that warrant improvement. Once those areas are

¹² NorthStar Update Report, pp. 29-30.

¹³ DR 1526.

¹⁴ DR 1523 and DR 1390.

¹⁵ DR 1390.

identified, initiatives are developed to address them, which generally involve the development and implementation of safety standards, controls, and practices.¹⁶

PG&E's current safety initiatives and timelines are documented in the 2025 Workforce Safety Strategy.¹⁷ According to PG&E, the LOB and EH&S officers and safety directors reviewed, provided feedback, and agreed to the 2025 Workforce Safety Strategy.¹⁸ NorthStar found no evidence that business cases or any other documentation demonstrating the value of the initiatives were used as part of the review and approval of the 2025 Workforce Safety Strategy. In fact, PG&E asserts that "[s]ince PG&E has an approved Workforce Strategy, the need for a Business Case approval is not **necessary**, except if significant funding is required."¹⁹

PG&E 2025 Workforce Safety Strategy serves as its annual safety plan and provides timelines for the implementation of safety initiatives. In contrast to 2017, PG&E development and execution of safety initiatives is centralized, and facilitated by EH&S project managers. This has reduced the initiatives overload and fatigue that NorthStar found in 2017.

PG&E's 2020 RAMP report includes forecast costs and Risk-Spend Efficiency (RSE) values for planned contractor and employee safety mitigations (initiatives).²⁰ (It should be noted that the initiatives included the RAMP report precede the 2025 Workforce Safety Strategy.) In one instance, the RAMP report discussed the fact that PG&E planned to spend about half of its contractor safety budget on a program (contractor field inspections) with a low RSE; while spending less than one percent of the budget on a program (work permits) with a high RSE. PG&E should not use RSEs alone to determine which initiatives move forward; but all initiatives with significant expenditures should be documented in business cases which allow an understanding of their costs and impacts.

PG&E points out that safety initiatives that involve significant capital expenditures are subject to PG&E's IPP, which is the process to have budget requests for such expenditures approved.²¹ As discussed in **Section B - Recommendation VI-5**, PG&E is transitioning its existing IPP to the Operating Rhythm process. While PG&E states that new process will include a Risk-Based Portfolio Planning Framework, NorthStar has not seen this framework, and does not know if it will be used by all LOBs.

In 2020 PG&E developed business cases for select initiatives, but these business cases were developed with the intent to provide project management control, rather than for management approval of expenditures. They do not contain project cost data.²²

¹⁶ PG&E Fact Verification.

¹⁷ DR 1390 and PG&E Fact Verification.

¹⁸ DR 1390 and PG&E Fact Verification.

¹⁹ DR 1526.

²⁰ PG&E, 2020 Risk Assessment and Mitigation Phase Report, June 30, 2020.

²¹ PG&E Fact Verification Matrix.

²² DR 1526.

D. RECOMMENDATION VI-4

Recommendation

VI-4: Move forward with planned implementation of the Power Generation IPP Portfolio Planning and Management (PPM) system for all operational LOBs.

Background

During the 2016/2017 period, each operational LOB used different tools and methods to develop its Session 1 and Session 2 IPP submissions (capital expenditure plans). Power Generation used the PPM database to maintain its project portfolio and support its capital planning efforts. Among other things, the PPM calculated the RIBA score and tracked the projected and actual costs as well as the project status.

In 2016/2017, PG&E planned to implement the PPM processes in Gas Operations and Electric T&D as part of an Enterprise Portfolio Planning and Management (EPPM) initiative to help unify the portfolio planning process across the Gas Operations and Electric T&D LOBs. Prior to the EPPM, portfolios were planned and managed using individual spreadsheets and in-house LOB-specific systems with no enterprise-wide system of record, no standardization, and no common reporting across PG&E.²³

PG&E Reported Status

Complete. PG&E reported that its Internal Audit Department's review was complete in its July 30, 2019, Quarterly Report.

Results/NorthStar Assessment

Implemented, but requires update. Although initially completed in 2019, the current EPPM tool must be updated to reflect a change in the methodology used by the LOBs to prioritize their work portfolios.

Discussion

In December 2017, PG&E deployed EPPM to Electric Operations and Gas Operations. Power Generation used a non-enterprise version of PPM until it adopted the EPPM in January 2019.²⁴ In 2019, EPPM became the Enterprise System of Record for RIBA Scoring for Gas Operations, Electric Operations and Generation. Utility Standard FIN-1010S – Risk Informed Budget Allocation Scoring Standard, Rev 1, issued May 17, 2019, stated that:

²³ NorthStar Safety Report, May 2017, p. VI-21.

²⁴ 3rd Quarterly Safety Report, Attachment 1-22.

EPPM establishes a single, enterprise-wide system to risk-inform and support prioritization of projects and programs for the core operational LOBs. EPPM also facilitates enterprise-wide RIBA score visibility, enabling cross-LOB comparison of RIBA scores.²⁵

Starting in 2021, the operating LOBs no longer use the RIBA Standard to prioritize their work portfolios. The company has moved to other methods for prioritization, including RSE scores.²⁶ Risk mitigation program alternatives within the LOB's work portfolios will be evaluated based on the application of Risk-5001S and Risk-5001P-01.²⁷

- Risk-5001S: Enterprise and Operational Risk Management Standard – describes the requirements, roles and responsibilities for identifying and evaluating enterprise and operational risks, responding to those risks, and monitoring those risks with the overall objective to measurably reduce enterprise and operational risk.²⁸
- Risk-5001P-01: Enterprise and Operational Risk Management Procedure – provides LOBs with instructions for calculating the RSE for risk mitigation alternatives using the MAVF-based risk models.²⁹

Risk-5001P-01 describes how RSEs are to be used in alternatives analysis and the development of a risk reduction strategy. RSE scores are only used on the portion of each LOB's portfolio where the projects or programs reduce risk associated with a quantified risk on PG&E's Corporate Risk Register.³⁰ Once the strategy has been approved, risk owners are responsible for implementing that strategy which includes the prioritization and scheduling of specific mitigation tasks. As of April 30, 2021, PG&E planned to update the EPPM to house RSE calculations instead of RIBA scores, and require that RSEs be uploaded into the EPPM. At that time, the EPPM enhancements were in the design and build phase.³¹ As of April 30, 2021, Electric Operations was piloting a potential replacement to EPPM (CopperLeaf's C55 System). EPPM will remain the Enterprise Portfolio tool until the pilot is complete in 2022, and pending agreement and acceptance at the Enterprise level.³²

As mentioned in **Section B–Recommendation VI-5**, in its September 2021 verification comments, PG&E explains that there is ongoing work to roll out a RBPPF to replace RIBA and the originally planned RIBA 2.0 as a means to incorporate risk into the financial planning process.³³

²⁵ 3rd Quarterly Safety Report, Attachment 1-23.

²⁶ PG&E Fact Verification Matrix.

²⁷ DR 1401.

²⁸ DR 1480, Attachment 1.

²⁹ DR 1480, Attachment 2.

³⁰ PG&E Fact Verification Matrix.

³¹ DR 1524.

³² DR 1524.

³³ PG&E Fact Verification Matrix.

CHAPTER VII: COMPENSATION AND PERFORMANCE MANAGEMENT

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to compensation and performance management. **Exhibit VII-1** provides a summary of NorthStar's recommendations, their origin (either NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit VII-1 Summary of Compensation and Performance Management Recommendations

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
VII-1	None of the KPIs currently considered for use in measuring safety culture should be included as an incentive measure (i.e., included as part of the Short-Term Incentive Program (STIP) or the Long-Term Incentive Program (LTIP). This will only serve to provide artificially-inflated results or drive unintended consequences. Most of the proposed metrics are based on either employee surveys or near hit/CAP reporting. Incentives tied to employee submittals will ensure targets are met and may minimize the value of the submittals (for example, a sudden influx of not particularly meaningful submittals prior to the end of a reporting period). Similarly, an incentive tied to survey results will drive positive reporting rather than true results.	NorthStar's May 8, 2017, Report, Chapter VII.	VII-1, VII-4, and VII-5 grouped in one implementation plan.	A
VII-2	Continue to track metrics eliminated from STIP as part of the Business Performance Review (BPR) process to allow trending.	NorthStar's May 8, 2017, Report, Chapter VII.	Individual implementation plan.	B
VII-3	Increase the weighting of safety in the LTIP to more closely align safety performance and executive compensation.	NorthStar's May 8, 2017, Report, Chapter VII.	Individual implementation plan.	C
VII-4	Reevaluate the appropriateness of the Earning from Operations component of the STIP due to its lack of transparency and the ongoing adjustments for Items Impacting Comparability.	NorthStar's May 8, 2017, Report, Chapter VII.	VII-1, VII-4, and VII-5 grouped in one implementation plan.	D
VII-5	Revisit all STIP metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar. Set multi-year targets to drive performance. Include a contractor safety metric in the STIP. Following the development of the enterprise safety plan, PG&E should develop STIP and BPR metrics that measure plan implementation/adoption and the effectiveness of the various initiatives identified in the plan. PG&E should continue monitor and report lagging OSHA metrics (i.e., DART, LWD, MVIs, fatalities) as part of the BPR process.	NorthStar's May 8, 2017, Report, Chapter VII.	VII-1, VII-4, and VII-5 grouped in one implementation plan.	E

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
VII-6	Develop a more robust and comprehensive set of BPR metrics addressing all aspects of safety such as public, employee and contractor safety; facility, infrastructure/asset and cyber security; environmental safety; public awareness; and safety culture.	NorthStar's May 8, 2017, Report, Chapter VII.	Individual implementation plan.	F
VII-7	Improve the internal sharing of best practices. Increase the level of involvement by different groups and employee levels. As an example, NorthStar performed a management audit of National Grid Gas' New York operations a few years ago for the New York Public Service Commission. The utility had a fairly robust process improvement program. NorthStar's report describing the process is available on the New York State Department of Public Service's website.	NorthStar's May 8, 2017, Report, Chapter VII.	Individual implementation plan.	G

A. RECOMMENDATION VII-1

Recommendation

VII-1: None of the KPIs currently considered for use in measuring safety culture should be included as an incentive measure (i.e., included as part of the Short-Term Incentive Program (STIP) or the Long-Term Incentive Program (LTIP)). This will only serve to provide artificially inflated results or drive unintended consequences. Most of the proposed metrics are based on either employee surveys or near hit/CAP reporting. Incentives tied to employee submittals will ensure targets are met and may minimize the value of the submittals (for example, a sudden influx of not particularly meaningful submittals prior to the end of a reporting period). Similarly, an incentive tied to survey results will drive positive reporting rather than true results.

Background

At the time of NorthStar's first review, PG&E was considering certain metrics for assessing safety culture. NorthStar identified some potential problems with the use of each of the proposed safety culture metrics for incentive compensation calculations. As discussed in more detail in NorthStar's May 8, 2017, Report, these included safety culture surveys, training completion, near hit reporting and corrective action program entries.

PG&E Reported Status

Complete. PG&E grouped recommendation VII-1 with recommendations VII-4 and VII-5, and reported that key milestones were completed in these areas in its First Quarterly Report, dated December 28, 2018.¹ PG&E reported that its Internal Audit Department

¹ December 28, 2018, Quarterly Report, Safety Culture and Governance OIL.

review of PG&E's completion narrative was complete in its Second Quarterly Report, dated April 26, 2019.²

Results/NorthStar Assessment

Implemented.

Discussion

None of the metrics PG&E was evaluating for use in measuring safety culture have been used as part of the STIP or LTIP during the period from 2016 through 2021. **Exhibit's VII-2** and **VII-3** provide the actual STIP and LTIP metrics that were effective during this period.

Exhibit VII-2 PG&E STIP Metrics – 2016 to 2021

STIP Measures	Dates Included in STIP
Safety	
Nuclear Operations Safety/Generation	
Unit 1 Reliability and Safety Indicator	2016-2018
Unit 2 Reliability and Safety Indicator	2016-2018
Diablo Canyon Power Plant (DCPP) Reliability and Safety Indicator [Note 1]	2019-2021
Safe Dam Operating Capacity	2020-2021
Electric Operations Safety	
T&D Wires Down	2016
911 Emergency Response	2016-2017
Electric Overhead Conductor Index	2017
Public Safety Index	2018-2019
Electric Asset Failure	2020
Distribution Circuit Sectionalization	2020
Reportable Fire Ignitions	2020-2021
Wires Down Events due to Equipment Failure	2021
Gas and Electric Operations Safety	
Asset Records Duration Index	2018-2019
Gas Operations Safety	
Gas Emergency Response	2016-2017
Gas In-Line Inspection and Upgrade Index	2016-2018
First Time In-Line Inspection Miles	2019
Gas Dig-Ins Reduction	2016-2018, 2020-2021
Large Overpressure Events	2020-2021

² April 26, 2019, Safety Culture and Governance Quarterly Report No. 02-2019, in Compliance with CPUC Decision 18-11-050.

STIP Measures	Dates Included in STIP
Employee Safety	
Lost Workday Case Rate	2016
Serious Preventable Motor Vehicle Incidents (SPMVI)	2016-2017
Timely Reporting of Injuries	2016-2017
Serious Injuries and Fatalities (SIF) Corrective Action Index	2017-2019
Safe Driving Rate	2019
Days Away, Restricted and Transferred (DART)	2020-2021
Serious Injuries Actuals	2021
SIF Investigation Timeliness	2021
SIF Corrective Action Timeliness	2021
Customer Satisfaction	
System Average Interruption Duration Index (SAIDI)	2016-2017
Customer Satisfaction Score	2016-2018
Customer Connection Cycle Time	2019
Customer Satisfaction as Measured by Complaints	2019-2020
Operational Performance and Reliability	
Gas Customer Response	2019-2021
911 Emergency Response	2019-2021
Customers Experiencing Multiple Interruptions (CEMI)	2020-2021
Average Speed of Answer (ASA) for Emergencies	2021
Financial	
Earnings from Operations (EFO)	2016-2019
Non-GAAP Core Earnings per Share	2020-2021

Note 1: A composite of Unit 1 and Unit 2 performance.

Source: 2017, 2018 and 2019 Joint Proxy Statements, Case: 19-30088, Document # 806, Filed 03/08/19, March 4, 2020, Form 8-K, filed with the SEC, and PG&E January 15, 2021, Executive Compensation Structure Submission to the Wildfire Safety Division.

Exhibit VII-3 PG&E LTIP Metrics – 2016 to 2021 [Note 1]

LTIP Measures	Date(s)
Safety - Performance Shares	
Lost Workday (LWD) Case Rate	2016
SIF Effectiveness of Corrective Actions	2017-2018
System Hardening	2020
PSPS Mitigations through Substation Energization	2020
System Hardening Effectiveness (Risk Miles)	2021
Enhanced Vegetation Management (EVM) Effectiveness (Risk Miles)	2021
Financial - Performance Shares	
Total Shareholder Return	2016-2018
Affordability 3-Year Efficiency Gains	2016
Earnings from Operations	2017-2018
Greater Affordability for Customers	2021
Relative Total Shareholder Return	2021
Customer Experience - Performance Shares	
Customer Satisfaction	2021
PSPS Notification Accuracy	2021

Note 1: No LTIP grants were planned for 2019.

Source: 2017, 2018 and 2019 Joint Proxy Statements, Case: 19-30088, Document # 806, Filed 03/08/19, March 4, 2020, Form 8-K, filed with the SEC, and PG&E January 15, 2021, Executive Compensation Structure Submission to the Wildfire Safety Division.

PG&E has substantially revised its executive compensation structure since NorthStar's 2017 Report. PG&E is also subject to a number of additional requirements to ensure the structure promotes safety, financial stability, and other priorities.³ PG&E reports STIP and LTIP metrics to the Commission in a variety of forums: in General Rate Case (GRC) Testimony, as part of the Wildfire Safety Division (WSD) Safety Certification process, in the Board of Directors (BOD) minutes filed with Quarterly Reports, and in annual Tier 1 advice letters as required by the Commission as part of its decision approving PG&E's plan of reorganization. This information is also publicly available in PG&E's Proxy Statements filed with the Securities and Exchange Commission (SEC). PG&E also files safety performance metric reports with SPD on an annual basis.

B. RECOMMENDATION VII-2

Recommendation

VII-2: Continue to track metrics eliminated from STIP as part of the Business Performance Review (BPR) process to allow trending.

Background

In its May 8, 2017, Report, NorthStar found that there had been ongoing changes in some of the STIP and LTIP measures and that recently introduced metrics were more subjective than prior metrics. As an example, PG&E replaced the Lost Workday (LWD) metric with a metric that included the quality of Serious Injuries and Fatalities (SIF) Corrective Actions, as discussed in the bullets that follow. NorthStar considered this to be partially indicative of the current state of PG&E's safety culture evolution; however, it made performance trending more challenging. Historically PG&E's philosophy was to use metrics that were auditable, with an emphasis on benchmarkable metrics. For 2017, PG&E made changes to its existing STIP metrics, introduced new metrics, and eliminating others. According to PG&E, this increased the number of leading indicators but, at the same time, it also reduced the number of KPIs that could be benchmarked and also increased the subjectivity of some metrics. As examples:

- After gaining some traction in its efforts to drive the industry towards the reporting of a T&D Wires Down metric, PG&E eliminated the metric from its STIP. According to PG&E, this was because California's drought had made benchmarking and target-setting problematic compared to other utilities. Consequently, PG&E replaced the T&D Wires Down metric with an Electric Overhead Conductor Index. The Electric Overhead Conductor Index included three equally weighted metrics: 1) electric distribution infrared inspections; 2) electric distribution conductor upgrades; and 3) a T&D vegetation management Public Safety and Reliability Program (PS&R). This metric could not be benchmarked. These were new metrics for PG&E and not commonly reported by other electric utilities.

³ PG&E Fact Verification.

- Metrics shifted classifications between customer satisfaction and safety.
- PG&E eliminated the LWD metric due to OSHA requirements, and replaced it with a SIF Corrective Action Index. The SIF Corrective Action Index was based on two equally weighted measures: 1) Quality of corrective actions and 2) Timely completion of corrective actions. The quality of corrective actions was determined by a third party to minimize subjectivity. Effectiveness of corrective actions was not part of the index, but was included in the LTIP.

PG&E Reported Status

Complete. PG&E reported this item complete in its January 8, 2018, Safety Culture and Governance OII 15-08-019 Prepared Testimony.⁴ PG&E reported that its Internal Audit Department review of its completion narrative was complete in its First Quarterly Report, dated December 28, 2018.⁵

Results/NorthStar Assessment

Implemented.

Discussion

Exhibit VII-2 (shown above) provides the changes in PG&E's STIP metrics from 2016 to 2021. **Exhibit VII-4** provides each metric that was in place in 2017 when NorthStar originally evaluated them, and whether they continue to be tracked.

Exhibit VII-4 2017 STIP Metrics – Status through 2020

2017 STIP Measures	Tracking Status
Safety	
Nuclear Operations Safety/Generation	
Unit 1 Reliability and Safety Indicator	Remains a STIP metric
Unit 2 Reliability and Safety Indicator	Remains a STIP metric
Electric Operations Safety	
911 Emergency Response	Remains a STIP metric
Electric Overhead Conductor Index [Note 1]	Metric elements tracked
Gas Operations Safety	
Gas Emergency Response	Remains a STIP metric
Gas In-Line Inspection and Upgrade Index [Note 2]	L1 metric
Gas Dig-Ins Reduction	Remains a STIP metric
Employee Safety	
Serious Preventable Motor Vehicle Incidents (SPMVI)	L2 metric
Timely Reporting of Injuries	L3 metric
Serious Injuries and Fatalities (SIF) Corrective Action Index	L2 metric

⁴ January 8, 2018, Safety Culture and Governance OII 15-08-019 Prepared Testimony.

⁵ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

2017 STIP Measures	Tracking Status
Customer Satisfaction	
System Average Interruption Duration Index (SAIDI)	L1 metric
Customer Satisfaction Score	L1 metric
Financial	
Earnings from Operations (EFO)	Earnings per Share is a STIP metric

Note 1: Index composed of three equally weighted components: 1) electric distribution infrared inspections; 2) electric distribution conductor upgrades; 3) transmission and distribution vegetation management public safety and reliability program.

Note 2: Index measuring PG&E's ability to complete planned in-line inspections and pipeline retrofit projects.

Source: 2017, 2018 and 2019 Joint Proxy Statements, Case: 19-30088, Document # 806, Filed 03/08/19, March 4, 2020, Form 8-K, filed with the SEC, and PG&E January 15, 2021, Executive Compensation Structure Submission to the Wildfire Safety Division.

At the time of NorthStar's initial safety culture assessment, and until recently, the BPR mechanism was the process PG&E used to track performance on key metrics across each Line of Business (LOB). The process culminated in a BPR meeting each month with the SVP team. In 2020, PG&E began modifying its existing Integrated Planning Process (IPP), replacing the process with a new "Operating Rhythm" process. The Operating Rhythm is also replacing the BPR process. The revised process will change the STIP, LTIP and other metrics for 2022, as well as the manner in which they are tracked and reported. The current CEO, Patti Poppe, is also introducing the Lean Operating System to PG&E.

PG&E's implementation of the Operating Rhythm and the Lean Operating System will result in significant modifications to the overall metric development and performance management processes. For example, in early 2021, the BPR meetings were replaced with Level 1 (L1) KPI/Initiative Reviews. As planned, Level 2 (L2) and Level 3 (L3) metrics will be identified and each will be assigned to a metric owner. L1, L2 and L3 metrics typically refer to the hierarchy of metrics where the L1 metric represents the enterprise-wide metrics, L2 metrics support the L1 metrics, and the L3 metrics cascade further down the organization. PG&E uses "KPI trees" to cascade the metrics. As of June 2021, the processes and the 2022 metrics were still under development. Under the Lean Operating System, PG&E will conduct daily weekly and monthly operating reviews of KPIs to better understand performance, drive its actions and confirm countermeasures are functioning as intended when applicable.⁶

C. RECOMMENDATION VII-3

Recommendation

VII-3: Increase the weighting of safety in the LTIP to more closely align safety performance and executive compensation.

⁶ DR 1602.

Background

Historically, PG&E's LTIP was comprised of Performance Shares and Restricted Stock Units (RSUs). RSUs are hypothetical shares of stock that are settled in an equal number of shares of PG&E Corporation common stock. RSUs vest over a three-year vesting period (generally one-third at the end of each year of the vesting period). Performance shares are hypothetical shares of PG&E Corporation common stock tied directly to PG&E Corporation's performance for shareholders, and generally vest only at the end of a three-year performance period. Performance shares were paid out in a range from 0 to 200 percent based on PG&E Corp.'s Total Shareholder Return (TSR).

In 2015, an employee safety metric, the LWD Case Rate, was added to the LTIP and used to determine 5 percent of the value of performance shares. An affordability metric was also added representing 5 percent of the value of the performance shares. This increased the weighting on performance shares to 60 percent. RSUs accounted for the other 40 percent. The LTIP represents a significant portion of executive management's annual compensation award so, to be meaningful, the safety component needs to be a larger share of the LTIP.

PG&E Reported Status

Complete. PG&E reported that key milestones were complete in its First Quarterly Report.⁷ PG&E reported that its Internal Audit Department review of its completion narrative was complete in its Second Quarterly Report.⁸

Results/NorthStar Assessment

Implemented.

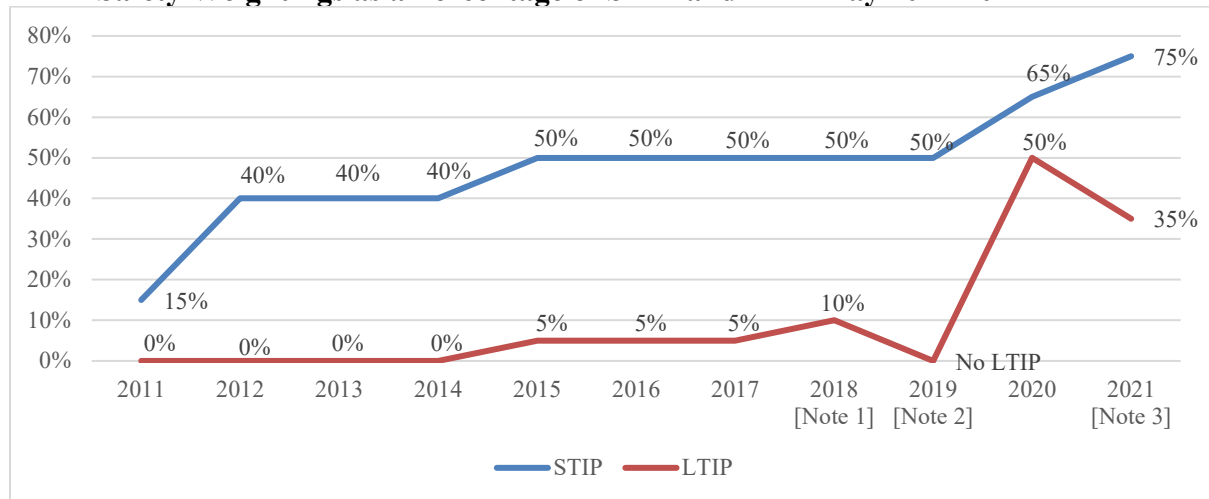
Discussion

PG&E has increased the relative weighting of the safety component in the LTIP over time, as shown in **Exhibit VII-5**.

⁷ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

⁸ April 26, 2019, Safety Culture and Governance Quarterly Report No. 02-2019, in Compliance with CPUC Decision 18-11-050.

**Exhibit VII-5
Safety Weightings as a Percentage of STIP and LTIP Pay 2011-2021**



Note 1: The Compensation Committee eliminated the STIP payout for 2018.

Note 2: There were no LTIP awards for 2019 due to PG&E's bankruptcy.

Note 3: For the 2021 STIP, PG&E classifies 25% as Financial Stability and 75% as "Customer and Workforce Welfare". For the LTIP, PG&E considers 35% to be attributable to public safety, 35% customer experience and 30% financial stability.

Source: 2011-2017 data taken from a January 29, 2020, Harvard Business School Case Study, titled "Governing PG&E" which cites NorthStar's work. Other year's data based on PG&E proxy statements and other regulatory filings.

D. RECOMMENDATION VII-4

Recommendation

VII-4: Reevaluate the appropriateness of the Earning from Operations component of the STIP due to its lack of transparency and the ongoing adjustments for Items Impacting Comparability.

Background

In its May 8, 2017, Report, NorthStar recommended that PG&E reevaluate the appropriateness of the Earnings from Operations component of the STIP due to its lack of transparency and the ongoing adjustments for "Items Impacting Comparability". At the time of NorthStar's 2016-2017 review, PG&E did not provide targets for this metric, and would make adjustments to the actual results at year end.

PG&E Reported Status

Complete. PG&E grouped NorthStar recommendations VII-1, VII-4, and VII-5, and reported that key milestones were complete in its First Quarterly Report, dated December 28,

2018.⁹ PG&E reported that its Internal Audit Department review of its completion narrative was complete in its Second Quarterly Report, dated April 26, 2019.¹⁰

Results/NorthStar Assessment

Implemented.

Discussion

In response to NorthStar's recommendation, PG&E established budget-based targets and eliminated the items impacting comparability adjustments. Presently, PG&E uses Earnings per Share (EPS), which is a commonly used metric, and eliminated the Earnings from Operations metric.

E. RECOMMENDATION VII-5

Recommendation

VII-5: Revisit all STIP metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar. Set multi-year targets to drive performance. Include a contractor safety metric in the STIP. Following the development of the enterprise safety plan, PG&E should develop STIP and BPR metrics that measure plan implementation/adoption and the effectiveness of the various initiatives identified in the plan. PG&E should continue to monitor and report lagging OSHA metrics (i.e., DART, LWD, MVIs, fatalities) as part of the BPR process.

Background

In its May 8, 2017, Report, NorthStar found that PG&E's existing BPR and STIP/LTIP metrics did not address all aspects of safety. Additionally, NorthStar was recommending the development of an enterprise-wide safety plan which would require performance monitoring and assessment.

PG&E Reported Status

Complete. PG&E grouped NorthStar recommendations VII-1, VII-4, and VII-5, and reported key milestones were complete in its First Quarterly Report, dated December 28, 2018.¹¹ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Second Quarterly Report, dated April 26, 2019.¹²

⁹ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

¹⁰ April 26, 2019, Safety Culture and Governance Quarterly Report No. 02-2019, in Compliance with CPUC Decision 18-11-050.

¹¹ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

¹² April 26, 2019, Safety Culture and Governance Quarterly Report No. 02-2019, in Compliance with CPUC Decision 18-11-050.

Results/NorthStar Assessment

Partially implemented. As shown in **Exhibit VII-6** below, PG&E completed only one of the five elements of Recommendation VII-5.

Exhibit VII-6
Recommendation VII-5 Completion Status

VII	Recommendation	Completion Status Assessment	Reason
5.1	Revisit all STIP metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar.	Partial.	NorthStar has no evidence that PG&E revisited all metrics in light of the plan. Completion documentation describes the standard STIP development process. PG&E's responses to NorthStar data requests 1541 and 1542 describe the process by which PG&E and its BOD establish STIP metrics and targets, but do not indicate that the recommended analysis was performed or that NorthStar's recommendations were the driver. STIP metrics were revised in 2018 and in 2020.
5.2	Set multi-year targets to drive performance.	Not implemented.	PG&E included multi-year targets in its enterprise-wide safety plan, but did not develop STIP multi-year targets.
5.3	Include a contractor safety metric in the STIP.	Partial. Not implemented as intended.	Contractor safety metrics were not added to the STIP in the manner intended. They are embedded with in a metric, but do not call attention to the importance of contractor safety. The metric PG&E believes satisfies this requirement was in place from 2017-2019 and then eliminated. Contractor safety metrics are included in PG&E's Quarterly Reports to the Commission required by D. 18-11-050. Operating Rhythm L1-L3 contractor metrics are limited.
5.4	Following the development of the enterprise safety plan, PG&E should develop STIP and BPR metrics that measure plan implementation/ adoption and the effectiveness of the various initiatives identified in the plan.	Partial.	In response to NorthStar's recommendations, PG&E developed a <i>One PG&E Occupational Health & Safety (OH&S) Plan</i> . Whether NorthStar considers this plan to be consistent with its recommendations is discussed in Chapter III. PG&E subsequently developed a 2025 Workforce Safety Strategy. PG&E reports metrics associated with the plan categories, but not for individual initiatives. PG&E assesses overall effectiveness using DART and SIF.
5.5	PG&E should continue to monitor and report lagging OSHA metrics (i.e., DART, LWD, MVIs, fatalities) as part of the BPR process.	Implemented.	PG&E reports OSHA metrics as part of the Quarterly Reports to the Commission required by D. 18-11-050, the Operating Rhythm, and to the PG&E BODs.

Discussion

PG&E has not clearly demonstrated that it revisited all of its metrics in light of the enterprise-wide safety plan, nor did it develop multi-year targets for the STIP metrics. Multi-year targets were included in the *One PG&E Occupational Health & Safety Plan* (Safety Plan), but not developed for the higher-level STIP metrics. PG&E's responses to NorthStar data requests 1541 and 1542 describe the process by which PG&E and its BOD establish STIP metrics and targets, but do not indicate that the recommended analysis was performed or that NorthStar's recommendations were the driver. STIP metrics were revised in 2018, and again in 2020 as part of the bankruptcy plan of reorganization.¹³

At the time of NorthStar's initial review, PG&E was experiencing a significant number of contractor injuries and fatalities. NorthStar recommended the addition of a contractor safety metric to increase visibility and demonstrate PG&E's commitment to contractor safety. PG&E included contractor incidents in the Serious Injury and Fatality (SIF) Corrective Action Index metric; however, this does not provide the intended visibility and commitment. The SIF Corrective Action Index was already a STIP metric in 2017. It was included as a metric in 2018 and 2019, but then eliminated in 2020.

As described in PG&E's 2018 Proxy Statement regarding the 2017 STIP metrics, the SIF Corrective Action Index is: "comprised of two equally weighted measures of response to SIF events: (1) Quality of Corrective Actions, and (2) Timely Completion of Corrective Actions."¹⁴ Contractors are not mentioned in either the 2018 or 2019 Proxy Statements, but are referred to in the STIP metrics developed in the bankruptcy proceeding.¹⁵

For 2020, PG&E shifted to Days Away Restricted or Transferred (DART) rate which only includes employees.¹⁶ As described by PG&E, it "did not use contractor data in this metric because of concerns about the completeness of such third-party data and the extent of PG&E's visibility into such data. The Commission approved PG&E's 2020 executive compensation program on June 1, 2020."¹⁷ The Compensation Committee considers public, employee and contractor safety when exercising its discretion.

The 2021 STIP metrics include: Serious Injuries Actual, SIF Investigation Timeliness and SIF Corrective Action Timelines, which do include contractors.¹⁸

Finally, in its April 26, 2019, Quarterly Report, PG&E acknowledged that, "there is not a specific STIP metric that measures Safety Plan implementation, adoption, or the effectiveness of the various initiatives identified in the Safety Plan."

¹³ PG&E Fact Verification.

¹⁴ PG&E Joint Notice of 2018 Annual Meetings, Joint Proxy Statement.

¹⁵ 2018 and 2019 Joint Proxy Statements, Document 806, Case: 19-30088, filed 3/8/19.

¹⁶ DR 1544. PG&E indicates that the Compensation Committee of the Board of Directors has the discretion to alter payout based on poor safety performance, including contractor injuries.

¹⁷ PG&E Fact Verification

¹⁸ DR 1545.

F. RECOMMENDATION VII-6

Recommendation

VII-6: Develop a more robust and comprehensive set of BPR metrics addressing all aspects of safety such as public, employee and contractor safety; facility, infrastructure/asset and cyber security; environmental safety; public awareness; and safety culture.

Background

In its May 8, 2017, Report, NorthStar found that PG&E's current BPR and STIP/LTIP metrics did not address all aspects of safety. Specifically, that report noted the following:

- The events leading up to the OII included two incidents at the Kern Power Plant involving a contractor fatality and a contractor serious injury, a house explosion in Carmel, two separate attacks on the West Park Substation in Bakersfield, a security breach at the Metcalf substation and violations related to the natural gas pipeline system. PG&E has also experienced employee and contractor fatalities since the start of NorthStar's review. Other than the LWD Case Rate, the STIP metrics do not address these issues.
- There were no metrics related to facility security.
- Contractor safety was included in the BPR metrics but not in the STIP.
- Power Generation tracked public safety awareness as part of the BPR process but Electric T&D and Gas Operations did not.
- There are no enterprise-level environmental safety or cyber security metrics.
- The gas leak emergency response metric tied to actions intended to prevent or minimize damages and injuries; however, this required the customer to call in to report when they smell gas.

PG&E Reported Status

Complete. PG&E reported that key milestones and its Internal Audit Department review of PG&E's completion narrative were completed in its First Quarterly Report, dated December 28, 2018.¹⁹

Results/NorthStar Assessment

Implemented. Safety BPR metrics for each of the recommended categories were added for 2018, but not consistently maintained at the L1 level going forward. The L1 level represents the highest level (e.g., STIP metrics). According to PG&E: "a robust and comprehensive list of metrics addressing all aspects of safety was maintained in 2019 and 2020 at the Executive level and within other organization-specific metric structures beyond the L1 level, where they still live." However, PG&E also acknowledges that "the comprehensive set of metrics mentioned above has been maintained throughout different

¹⁹ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

organizations in the Company, and a centralized list compiling all of these metrics across the Company may not previously have been provided to NorthStar.”²⁰

Discussion

Exhibit VII-7 provides NorthStar’s assessment as to whether BPR metrics exist by category.

Exhibit VII-7 Metrics Tracked at the L1 Level?

Category	2018 BPR	2019	2020	2021
Public Safety	Yes	Yes	Yes	Yes
Employee Safety	Yes	Yes	Yes	Yes
Contractor	Yes	No	No	No
Facility Security/Safety	Yes	Yes	Yes	No
Infrastructure/Asset	Yes	Yes	Yes	Yes
Cyber Security	Yes	Yes	Yes	No
Environmental	Yes	No	No	No
Public Awareness	Yes	No	No	Yes
Safety Culture	Yes	No	No	No

Source: DR 1254 Attachment (2020 data), DR 1294 Attachment 2a, DR 1548.

In May 2019, a team of individuals from the Diablo Canyon Power Plant (DCPP) completed a review of the sustainability of NorthStar’s recommendations. Regarding Recommendation VII-6, the team found that the “associated guidance document is not current and does not fully describe the implementation of this recommendation. This created a vulnerability for a robust and comprehensive approach and could result in some of the data not being reviewed as outlined in the recommendation.”²¹

The following action item was logged in PG&E’s Corrective Action Program (CAP):

To address recommendation VII-6, we will amend the BPR monthly package to include all safety metrics required for review. If there are changes to corporate governance in the future, the BPR enterprise governance team will ensure these metrics are reviewed at a forum with the appropriate leadership. 02/04/2020 - Spoke with Joe, we are currently tracking these BRP metrics, but they’re making changes post-bankruptcy emergence with input from new CSO and CEOs, so some may stay in BPR while others moved to other executive forums. For the purpose of these audit recommendations, this item is complete, but the PMO will continue to monitor and report to the CPUC as needed.²²

²⁰ PG&E Fact Verification.

²¹ DR 1294 Attachment 13a – CONFIDENTIAL.

²² DR 1372 “Safety OII Bi-weekly Status Report_Master_CONF” spreadsheet – CONFIDENTIAL.

G. RECOMMENDATION VII-7

Recommendation

VII-7: Improve the internal sharing of best practices. Increase the level of involvement by different groups and employee levels. As an example, NorthStar performed a management audit of National Grid Gas' New York operations a few years ago for the New York Public Service Commission. The utility had a fairly robust process improvement program. NorthStar's report describing the process is available on the New York State Department of Public Service's website.

Background

In its May 8, 2017, Report, NorthStar found that PG&E did not adequately share internal best practices, and that most cross-functional committees were at too high of a level that did not promote feedback from rank and file employees to solve problems or identify potential solutions. NorthStar believes that broader representation across the workforce in various task forces and committees would promote a better exchange of ideas and allow individuals with more direct involvement to brief colleagues rather than through the hierarchical "down briefing" that typically occurred at PG&E.

During the course of the review, NorthStar identified several process differences and shared this information with the LOBs. PG&E analyses regarding lost-work days indicated that some incidents could have been avoided with lessons learned sharing across the LOBs.

PG&E Reported Status

Complete. PG&E reported that key milestones were complete in its First Quarterly Report.²³ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Second Quarterly Report.²⁴

Results/NorthStar Assessment

Not Implemented. PG&E's implementation of lean management principles is intended to address operational/informational silos, improve sharing of best practices, and facilitate the prompt escalation and resolution of issues.

As of mid-2021, PG&E has not implemented many of the process improvement, best practices sharing and decision-making principles NorthStar observed at National Grid. Best practices sharing between LOBs continues to be an issue and, although NorthStar has attended hundreds of PG&E meetings, it continues to be the same mix of individuals attending these meetings. There is little evidence that decision-making takes place at these meetings and there is a limited inclusion of diverse insights and opinions in them.

²³ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

²⁴ April 26, 2019, Safety Culture and Governance Quarterly Report No. 02-2019, in Compliance with CPUC Decision 18-11-050.

Based on its review of the NorthStar recommendation and National Grid's process improvement efforts, PG&E assigned Project Sponsors to each of the programs in its *One PG&E OH&S Plan*. PG&E also implemented bi-weekly Safety Technical Council meetings, chaired by the CSO, and attended by the LOBs and led by EH&S to increase consistency and minimize operational safety gaps.

Discussion

PG&E reviewed NorthStar's Report on National Grid's process improvement program, and indicated that it had considered it but ultimately did not adopt it. **Exhibit VII-8** provides a timeline of PG&E's consideration of this recommendation.

Exhibit VII-8 Recommendation VII-7 Status Reporting

Status Report Date	Update
11/3/17	Breadth of scope a concern; National Grid model not appropriate for PG&E's organizational maturity; revised plan under development.
11/10/17	Awaiting sponsor validation of approach; updates to plan in progress.
11/17/17	Three-pronged approach identified, plan to support under development. Sponsor input provided – 3 elements identified (cross-functional sponsors for eight Health & Safety Plan focus areas, safety council integration, CAP facilitation of lessons-learned sharing).
12/8/17	Executive Sponsors responsibilities for elements of the Health & Safety Plan implements the National Grid model for safety & health. Revising implementation plan to reflect this approach. [Note 1]
1/20/18	One milestone remaining and several gaps identified on sustainability. Plans in place to close gaps.
2/2/18	Collecting meeting material for the evidence phase from the process owners.
3/2/18	Working to revise communication strategy after missing opportunity at the Enterprise Safety Committee; communication required ahead of March Line of Business Safety Council meetings.
3/16/18	Communication of responsibilities and supporting tools has not occurred; Plan Owner and Sponsor working on a revised communication plan (due date: 3/31/2018).
4/15/18	All milestones complete; completion narrative in progress.
5/11/18	Outline for completion narrative developed.
5/25/18	Completion narrative in final stages of development; expect to forward to Internal Audit next week.
6/12/18	Internal Audit review in progress.

Note: NorthStar Comment – Executive sponsorship is just one element of the National Grid process improvement program.

Source: DR 896 Attachments 4, 6, 8, 16, 18, 20, 21, 22, 26, 29, 31, 33.

PG&E described its planned implementation as follows:

PG&E has implemented a Process Owner model for the One PG&E Occupational Health & Safety Plan (Plan). The eight focus areas of the Plan have an Executive Sponsor who is responsible for the consistent implementation across all Lines of Business. Executive Sponsors meet with the Safety & Health Program Managers on program status, assists in the removal of barriers and aligning of resources. Additionally, the Executive Sponsor is responsible for reporting the progress of their focus area at the Safety Committee meetings.

Additionally, a cadence of meetings to facilitate the sharing of progress is in place. Safety and Nuclear Oversight Board of Directors (Quarterly):

- Safety Committee (Monthly)
- Line of Business Safety Council (Monthly)
- Grassroots Safety Meetings (Monthly)²⁵

PG&E's implementation of NorthStar's recommendation addressed only a portion of its operations – the One PG&E Occupational Health & Safety Plan. NorthStar has not observed any significant or measurable improvement in the sharing of best practices as a result of PG&E's governance structure and meeting cadence or the involvement of employees from across the workforce. PG&E cites the meetings occurring at a regular interval as evidence of sustainability.²⁶

With the new Operating Rhythm model in development, these meetings and the governance process is outdated and changing. PG&E is currently working on implementing lean operating principals throughout the organization, similar to the processes used at National Grid.

²⁵ PG&E Prepared Testimony, Safety Culture and Governance OII, 15-08-019, January 8, 2018.

²⁶ DR 1294, Attachment 13a – CONFIDENTIAL.

CHAPTER VIII: TRAINING

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to safety training. **Exhibit VIII-1** provides a summary of NorthStar's recommendations, their origin (NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit VIII-1 Training Recommendations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
F-3	Expedited completion of the safety leadership training for crew leads and foremen.	NorthStar's May 8, 2017, Report, Executive Summary	F3 and VIII-1, grouped in one implementation plan. U-16, and U-17 subsequently considered part of this plan.	A
VIII-1	Accelerate crew foremen safety leadership training.	NorthStar's May 8, 2017, Report, Chapter VIII	Included in F3 implementation plan.	A
VIII-2	Profile training participants so that individuals in office-based organizations generally do not receive field-oriented safety training ahead of field organizations.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	B
VIII-3	Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	C
VIII-4	Conduct mandatory refresher training for Electric [Transmission & Distribution] T&D, Gas Operations and Power Generation field resources on fundamental safety-related topics such as confined space, safety at heights and personal protective equipment.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	D
VIII-5	Profile employees to receive Human Performance training.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	E
VIII-6	Develop a monthly operator qualifications (OQ) status report for the Senior Vice President of Gas Operations and the President of Gas Operations. Include such information as number and type of examinations conducted, pass fail rates, number of qualifications expiring (in 90, 60, 30 and 5 days), the number of OQ scans conducted and the results.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	F
VIII-7	Conduct a review of 2014 OQs to determine if contract employees were working on PG&Es system with other expired OQs. Conduct additional re-inspections as necessary.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	G

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
VIII-8	Perform a feasibility study of PG&E training and testing of contractor employees for OQs. The study should consider the volume of students, the cost charged per unit, the availability of resources at PG&E and analysis of advantages and disadvantages.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	H
VIII-9	Power Generation should continue to update its apprentice programs.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	I
VIII-10	Power Generation should work with the Academy to improve the timeliness of training completion.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	J
VIII-11	Power Generation should develop a refresher training program, similar to that of Electric T&D and Gas Operations.	NorthStar's May 8, 2017, Report, Chapter VIII	Individual implementation plan.	K
U-16	Continue to provide Crew Lead Safety Leadership training courses for employees that move into Crew Lead positions. Automatically include Crew Lead Safety Leadership training in the training profiles for new crew leads.	NorthStar's March 29, 2019 Update Report	Implemented under existing F-3 and VII-1 implementation plan.	A
U-17	On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.	NorthStar's March 29, 2019 Update Report	Implemented under existing F-3 and VII-1 implementation plan.	C

Additional field safety training recommendations are included in Chapter V.

A. RECOMMENDATIONS F-3, VIII-1, AND U-16

Recommendations

F-3: Expedited completion of the safety leadership training for crew leads and foremen.

VIII-1: Accelerate crew foremen safety leadership training.

U-16: Continue to provide Crew Lead Safety Leadership training courses for employees that move into Crew Lead positions. Automatically include Crew Lead Safety Leadership training in the training profiles for new crew leads.

Background

In its May 2017 Safety Report, NorthStar found that the Safety Leadership Development (SLD) program that PG&E delivered from 2014 to 2016 had a positive impact on safety culture, but it did not specifically include training for crew foremen. PG&E planned to implement a safety training program for crew leaders in 2017, but the training was not scheduled to be complete until the end of 2019.

In July 2018, the Commission requested that NorthStar review the implementation status of selected recommendations, including recommendations F-3/VIII-1 to expedite the crew

leader safety training. In its March 29, 2019, Update Report, NorthStar reported that PG&E's implementation was complete.

In its March 19, 2019, Update Report, NorthStar also found that the PG&E Academy was planning to offer regular sessions of the Crew Lead Safety Leadership training courses so that as new employees move into Crew Lead positions, they would be able to enroll in the required courses. In addition, leaders throughout the organization would be able to profile or recommend the training for employees who occasionally act in a Crew Lead-type role or who have indicated they are interested in becoming a Crew Lead.

PG&E Reported Status

Complete. PG&E reported that Recommendations F-3 and VIII-1 key milestones were complete in its Second Quarterly Report.¹ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.²

PG&E first reported that Recommendation U-16 was implemented under the existing F-3/VIII-1 plan in its Sixth Quarterly Report.³

Results/NorthStar Assessment

Implemented.

Discussion

The 2014 to 2016 SLD program was for operational leaders and consisted of six safety leadership workshops, a 360-degree feedback process, and in-field safety coaching with safety leadership coaches. After accepting NorthStar's recommendation to accelerate crew leader training, PG&E revised its SLD program by eliminating some redundancies in the previous SLD training and modifying the curricula to make the training more relevant to field personnel. The revised program had two days of classroom training and three on-the-job training sessions with the employee's supervisor.

NorthStar examined PG&E's implementation of Recommendation F-3/VIII-1 in its March 29, 2019, Update report and found that PG&E was on target to complete crew lead SLD training by December 2018. On February 14, 2019, PG&E affirmed that it had met its target completion date.

¹ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.

² Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

³ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 06-2020, in compliance with Decision 18-11-050, submitted April 30, 2020.

According to PG&E:

All employees who are new to operational leadership positions are required to attend Safety Leadership Development (SLD) workshops within 90 days of being profiled for the training. The profiling occurs automatically when an employee assumes a new leadership role.⁴

Safety Leadership workshops continued throughout 2020.⁵ The content remained the same for all classes; however, due to COVID-19, PG&E eliminated activities that involved participants pairing up with each other and changed others to full class discussions. PG&E also converted the Supervisor class to a virtual class and reduced the number of participants allowed in the Crew Lead in-person class.⁶

A summary of profiled and completed SLD training in 2019 and 2020 is shown below in **Exhibit VIII-2**.

Exhibit VIII-2
Employees Profiled for SLD Training and Training Status

LOB/Position	Profile Year / Training Status						Grand Total
	2019			2020			
	Complete	Not Complete	Total	Complete	Not Complete	Total	
Electric Operations							
Director	6		6	1		1	7
Journey - IBEW	1		1		1	1	2
Lead – IBEW	57	1	58	72	27	99	157
Manager	31		31	11	2	13	44
Senior Director	2		2				2
Senior Manager	1		1				1
Supervisor	179	1	180	33	6	39	219
Elec. Operations Total	277	2	279	117	36	153	432
Percent Complete	99.3%			76.5%			
Enterprise Health & Safety							
Lead - IBEW	1		1				1
EH&S Total	1		1				1
Percent Complete	100.0%			N/A			
Gas Operations							
Director	5		5	1		1	6
Lead - IBEW	28	8	36	20	19	39	75
Manager	36	1	37	6	1	7	44
Senior Director	1		1				1
Supervisor	116	1	117	50	11	61	178
Gas Operations Total	186	10	196	77	31	108	304
Percent Complete	94.9%			71.3%			
Generation							
Director				1		1	1
Journey - IBEW	1		1		1	1	2
Lead - IBEW	12		12	10	4	14	26
Manager	2		2				2
Senior Manager	4		4	3		3	7

⁴ Eighth Quarterly Report, p. 17.

⁵ DR 1455.

⁶ Ninth Quarterly Report.

LOB/Position	Profile Year / Training Status						Grand Total
	2019			2020			
	Complete	Not Complete	Total	Complete	Not Complete	Total	
Supervisor	18		18	1		1	19
Generation Total	37		37	15	5	20	57
Percent Complete	100.0%			75.0%			
Information Technology							
Lead - IBEW	2		2	3		3	5
Manager	1		1				1
Senior Director	1		1				1
Supervisor	10		10	1	1	2	12
IT Total	14		14	4	1	5	19
Percent Complete	100.0%			80.0%			
Shared Services							
Career - ESC					1	1	1
Director				1		1	1
Expert – ESC				1		1	1
Intermediate – IBEW				3	2	5	5
Lead – IBEW	6		6	1		1	7
Manager	5		5				5
Supervisor	8		8	1		1	9
Shared Services Total	19		19	7	3	10	29
Percent Complete	100.0%			70.0%			
Grand Total	534	12	546	220	76	296	842
Percent Complete	97.8%			74.3%			

Source: DR 1455, NorthStar analysis.

B. RECOMMENDATION VIII-2

Recommendation

VIII-2: Profile training participants so that individuals in office-based organizations generally do not receive field-oriented safety training ahead of field organizations.

Background

In the May 2017 Safety Report, NorthStar found that many individuals that did not lead crews received SLD training before crew foremen. Some personnel who received SLD training were from organizations that did not have field responsibilities, positions that did not lead crews/teams, and positions that did not have a physical workforce.

PG&E Reported Status

Complete. PG&E reported that the Recommendation VIII-2 key milestones were complete in its Second Quarterly Report.⁷ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.⁸

⁷ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.

⁸ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E developed processes and controls to ensure that individuals in office-based organizations will generally not receive field-oriented safety training ahead of field organizations. As explained by PG&E in its completion narrative, “PG&E’s primary focus in addressing this recommendation was to improve training enrollment governance by ensuring the only employees who are profiled to a specific course are allowed to enroll in the course. Other employees will only be allowed to enroll in the course by submitting a request through the profile governance process, and being assigned the course profile.”⁹

PG&E implemented the following controls and processes to manage the employee training profile process and to prioritize which employees could enroll in specific classes:

- An ongoing review of the training profiles by Profile Approvers is performed via a monthly maintenance report.¹⁰
 - Profile Approvers ensure the accuracy of training profiles and keep the profiles current. They are assigned to organizational units and oversee the assignments of all employees that fall within those organizational units.¹¹
 - The report shows assignment details, as well as new positions, jobs, organizations, and employees missing training. Profile Approvers regularly review the report to identify and make changes to employee training profiles.¹²
- Additional controls and capabilities were established in My Learning (the PG&E system that records assigned training) so that employees who are not profiled to select their own courses can no longer enroll in an instructor-led course without prior approval from the Profile Approver designated by their LOB or Training Requirements Owner (TRO). Among other things, the TRO interprets employee training requirement criteria from documented sources, and annually reviews the requirement, its cadence, and the identified audience).¹³ The enhancements to the My Learning employee training process were deployed on December 1, 2018, and included:
 - Added control points to stop enrollment in a course if the employee is not profiled for the course.
 - A process to track training requirements and certifications, and description of the target audience to enable the application and ongoing maintenance of training profiles.

⁹ DR 1324, Attachment 1.

¹⁰ DR 1324.

¹¹ DR 1321.

¹² DR 1324, DR 1324, Attachment 3.

¹³ DR 1324, Attachment 5 and DR 3121, PG&E Training and Training Governance Standard.

- Improved access to organizational data in order to cascade training requirements to all levels in an organization. This reduces the risk of missing a group and its employees from the application or update of a training profile.
 - Filters to ensure that employees in certain status groups or categories are excluded from learner group profiling. This prevents employees from being improperly profiled for unrequired training.
 - Improved reporting.¹⁴
- An annual Training Requirement Database review conducted by the PG&E Academy and the TROs.¹⁵

In 2018 the PG&E Academy and the LOB Profile Approvers conducted a review of field employee profiles to ensure their completeness, consistency, and accuracy.¹⁶

C. RECOMMENDATIONS VIII-3 AND U-17

Recommendations

VIII-3: Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.

U-17: On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.

Background

The SLD program that PG&E delivered between 2014 and 2016 included 360-degree surveys to obtain feedback on each individual's safety leadership performance from the individual, the individual's manager, their peers, and their direct reports. The program also provided in-field coaching to address issues identified in the assessment.¹⁷ An external consultant developed the initial SLD workshops and the 360-degree survey which had questions about the behaviors taught in the SLD workshops. The external consultant also provided the in-field coaching services and led the workshops in 2014 and 2015. PG&E assumed these responsibilities in 2016 and had six Safety Leadership Coaches who delivered the workshops and provided one-on-one coaching.¹⁸

¹⁴ DR 1324, Attachments 1 and 4.

¹⁵ DR 1324, and Attachment 2.

¹⁶ DR 1324 and Attachment 2.

¹⁷ NorthStar Report, May 8, 2017.

¹⁸ NorthStar Final Report, p. 177.

PG&E Reported Status

VIII-3: Complete. PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its First Quarterly Report.¹⁹

U-17: Complete. PG&E reported that its Internal Audit Department review of PG&E's completion narrative associated with Update Recommendation 17 was complete in its Ninth Quarterly Report.²⁰

Results/NorthStar Assessment

Partially implemented. NorthStar's assessment is summarized in **Exhibit VIII-3** below.

Exhibit VIII-3 Recommendations VIII-3 and U-17 Completion Status

Recommendation		Completion Status Assessment	Reason
VIII-3	Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.	Partially Implemented	PG&E uses SafetyNet observations, rather than 360-Degree Surveys, to identify gaps in SLD training. While this meets the intent of the recommendation to identify gaps to be addressed in the training, NorthStar believes the use of the SafetyNet observation data observation is less effective than the 360-Degree Surveys in determining the effectiveness of the training and identifying any gaps (see details below). PG&E also obtained feedback from the training participants to assess the program.
U-17	Set multi-year targets to drive performance.	Partially Implemented	The results of the SLD observations are used to identify items to be addressed in training. In 2019, PG&E reviewed SafetyNet data to inform the update cycle of the SLD workshops, but noted that the limited number of SafetyNet observations impacted the inferences that could be made regarding modifications to the training. ²¹

PG&E is revamping its SLD training program in 2021. PG&E's 2025 Safety Strategy includes an initiative to redesign SLD training and supervisor coaching, with plans for full implementation of the revamped program in 2023.²² According to PG&E, it expects to pilot the new SLD training program in 2022 and will solicit feedback from participants via

¹⁹ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

²⁰ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 09-2020, in compliance with Decision 18-11-050, submitted January 29, 2021.

²¹ DR 1087, Attachment 38.

²² DR 1296.

interviews and surveys in addition to the SafetyNet data and input from the program manager.²³

Discussion

As explained in its Completion Narrative, PG&E used an alternative approach to address the intent of NorthStar's recommendation. Instead of using 360-degree surveys to assess SLD participants in the field, PG&E personnel use an SLD observation checklist.²⁴ As PG&E explained:

The alternative approach creates an observation-based assessment of the adoption of the skills provided in the training program. Both the 360-degree survey and the alternative observations assess behavioral anchors delivered in the Safety Leadership Development (SLD) training curriculum. The observation approach also addresses concerns PG&E has with the NorthStar's initial recommendation of using a 360-degree survey by implementing a more cost effective and valid data collection methodology.²⁵

The Safety Leadership Coaches and their manager, the Senior Manager of Safety Culture developed the SLD observation checklist.²⁶ The SLD observation checklist is contained in SafetyNet, PG&E's Safety Observation System. In the SafetyNet system, observers will note behaviors that are demonstrated successfully as "safe", and those that are not demonstrated successfully as "at-risk."²⁷ Initially, the Safety Leadership Coaches who were trained to deliver and coach SLD content completed the checklist. During 2018, Field Safety Specialists assumed the responsibility for conducting the SLD observations.²⁸

During the 2020 Performance Management process, the EHS Director of Field Safety Operations set the performance goal for Field Safety Specialists to complete one SLD observation per month. This performance goal was set based on the ability to evaluate 50% of the LOB crew leaders each year.²⁹

While NorthStar understands PG&E's decision to use an alternate approach, it should be noted that the use of an observation checklist is less effective in changing individual behavior than having trained Safety Leadership Coaches performing a 360-survey assessment and coaching the individual based on the results of the assessment. As PG&E explained in its Recommendation VIII-3 Completion Narrative, PG&E used its external consultant's very rigorous and time-consuming process to select Safety Leadership Coaches. The factors used to select these coaches included: 1) their behavior in hypothetical situations ("what would you do if?"), 2) the ability to clearly present information based on two 15-minute presentations, (one on a given set of slides and one on a topic of their own), and 3) a mock coaching session with an employee. The successful candidates were then trained and qualified by being observed by the external consultants' coaching and delivering 3 to 4

²³ PG&E Fact Verification.

²⁴ First Quarterly Report, p 245.

²⁵ First Quarterly Report, p 245.

²⁶ First Quarterly Report, p 245.

²⁷ DR 992.

²⁸ DR 1404.

²⁹ DR 1204 and DR 1486.

different workshops. After completing this training, they were deemed qualified for “solo” delivery.³⁰ The Field Safety Specialists did not receive similar training.³¹

Moreover, as summarized in **Exhibit VIII-4**, many of the SafetyNet SLD questions cannot be answered by a one-time observation. For example, it is possible that there was no opportunity for the leader to talk about the Industrial Athlete or Nurse Care Line programs during the observation period (Numbers 1 and 5 in the Exhibit). Consequently, it would be impossible to determine what a leader *routinely* does by only conducting a single observation. PG&E does not address all SLD questions in each observation. PG&E conducted 66 observations in 2019 and Q1 of 2020. As shown in **Exhibit VIII-4**, only one question (Question 9, regarding speaking up) was addressed over 90 percent of the time, and three questions were addressed less than half the time.

Exhibit VIII-4
SafetyNet Questions Addressed in 66 SLD Observations
Conducted in 2019 and Q1 2020

SLD SafetyNet Questions	# of Findings in 66 Observations	Percent of Observations
1. Does the leader actively use and promote the use of the Industrial Athlete and Industrial Ergonomics programs?	30	45%
2. Does the leader conduct effective check-ins?	33	50%
3. Does the leader use and encourage the use of the hierarchy of controls to identify the most effective controls?	34	52%
4. Does the leader actively promote the use of the employee support programs such as the Nurse Care Line, EAP, etc.?	36	55%
5. Does the leader routinely provide effective success and guidance feedback that is specific, timely, and sincere?	37	56%
6. Does the leader conduct and promote end of day/post -job debriefs?	38	58%
7. Does the leader use active listening techniques when communicating with their employees?	43	65%
8. Does the leader ensure their employees conduct effective tailboards?	47	71%
9. Does the leader encourage their employees to speak up?	61	92%
10. Does the leader use the three-level inspection and the hazard identification wheel to identify hazards and exposures?	29	44%
11. Does the leader model Safety Leadership behaviors? (reference Safety Leadership Playbook’s 10 ways to be an effective leader)	32	48%
12. Does the leader actively use and promote the use of CAP?	36	55%
13. Does the leader use effective pre-worksites planning to identify and prepare for potential exposures?	40	61%
14. Does the leader focus on ensuring that exposures are effectively controlled?	46	70%
15. Does the leader demonstrate that they value everyone’s feedback?	46	70%

³⁰ Recommendation VIII-3 Completion Report, First Quarterly Report.

³¹ DR 1335.

SLD SafetyNet Questions	# of Findings in 66 Observations	Percent of Observations
16. Does the leader address and/or follow-up on issues, such as eliminating hazards and roadblocks, identified by their employees?	50	76%
17. Does the leader actively seek to identify and remove barriers to conducting work safely?	53	80%
18. Does the leader model safe behaviors?	54	82%
19. Does the leader set clear expectations regarding working safely, starting when safety, and stopping when unsure?	56	85%

Note: Shading denotes the question was addressed in less than 50 percent of the observations.

Source: DR 1203, NorthStar analysis.

PG&E stated that observations from SafetyNet are reviewed, analyzed, and summarized in October of each year by PG&E's Safety and Health personnel. The major themes are incorporated into the annual maintenance of the class content and implemented in the following January. PG&E's Human Resources organization is responsible for the ongoing delivery of the program as well as its annual maintenance.³²

In October 2019, PG&E reviewed the prior year's Safety Culture Observation data in order to update the SLD workshop training. During that period, just sixty Safety Culture Observations were recorded in SafetyNet. PG&E's review of the 60 observations did not indicate that any specific modifications to the SLD workshops were needed. In the summary review of the results, the Safety Leadership Program Manager noted:

[b]ecause of the limited number of Safety Culture Observations, no other inferences could be made.³³ The SafetyNet data analysis did indicate two items were not consistently performed: 1) hazard recognition, and 2) success and guidance feedback. PG&E recommended increased emphasis on those areas.³⁴

Due to COVID-19 during 2020, there was no review of the SafetyNet Safety Culture Observation data to provide recommendations regarding the update of the SLD training program. PG&E stated that there will be a review of the courses in Q1 of 2021 as well as the observation data to determine next steps for SLD.³⁵

PG&E's 2025 Safety Strategy includes an initiative to redesign the SLD training and supervisor coaching, with plans for full implementation of the revamped program in 2023.³⁶

³² DR 1203.

³³ DR 1087, Attachment 38.

³⁴ DR 1087 Attachment 38.

³⁵ DR 1315.

³⁶ DR 1296.

D. RECOMMENDATION VIII-4

Recommendation

VIII-4: Conduct mandatory refresher training for Electric [Transmission & Distribution] T&D, Gas Operations and Power Generation field resources on fundamental safety-related topics such as confined space, safety at heights and personal protective equipment.

Background

In its May 2017 Safety Report NorthStar found that PG&E did not require refresher training in some key safety areas for its employees. The “Keys to Life” messaging, shown in **Exhibit VIII-5**, was one of the fundamental elements of PG&E’s approach to safety, encouraging employees to take responsibility for their personal safety.

Exhibit VIII-5 Keys to Life

To assure your safety and that of your co-workers and the public:

- Follow safe driving principles
- Use appropriate, life-saving personal protective equipment (PPE)
- Follow electrical safety testing and grounding rules
- Follow clearance and energy lock-out rules
- Follow confined space rules
- Follow suspended load rules
- Follow safety at heights rules
- Follow excavation procedures
- Follow hazardous environment procedures.

Source: NorthStar Final Report, May 8, 2017, p. VIII-25.

PG&E only required some of the courses in its Keys to Life safety areas to be taken once by its field employees, including the following:

Exhibit VIII-6 Critical Training without Refresher Training Requirements

Course Number	Course Name
SAFE-0440	Safety @ Heights: Competent
SAFE-0454	Safety at Heights - Authorized Person
SAFE-1101	Scaffolding Safety - Authorized Person
SAFE-1102	Scaffolding Safety - Competent Person
SAFE-1201WBT	Confined Space - Awareness
SAFE-1205	Confined Space - Non-Entry Rescue
SAFE-1491WBT	Personal Protective Equipment (PPE)

Source: NorthStar Final Report, May 8, 2017, p. VIII-25.

PG&E Reported Status

Complete. PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.³⁷

Results/NorthStar Assessment

Implemented. PG&E added the required classes and profiled participants. Power Generation refresher training is addressed in Recommendation VIII-11.

Discussion

In 2019, PG&E identified five fundamental safety refresher courses to be regularly taken by employees. These are shown in **Exhibit VIII-7** below.

Exhibit VIII-7
PG&E Fundamental Safety Refresher Courses

Course Topic/Course Number	Line of Business		
	Electric Transmission and Distribution	Gas Operations	Power Generation
Confined Space	SAFE-0456R	GAS- 9043WBT	SAFE-0456R or PGEN-9041
PPE	SAFE-1492R		
Fall Protection Refresher: All Persons	SAFE-0455WBT		
Scaffold Refresher: Authorized Person	SAFE-1103R		
Scaffold Refresher: Qualified Person	SAFE-1104R		

Source: DR 1405, Attachment 1 and the Ninth Quarterly Report.

Training profiles were completed in April 2019. Profiled employees are scheduled to take the courses every three years, except for the PPE course which is to be taken annually.³⁸

PG&E's target audience for the fundamental safety-related topics includes the International Brotherhood of Electrical Workers (IBEW) T200 and T300 employees who perform this work. Employees profiled to complete training in 2019 were those who were outside of the newly-established three-year training interval.³⁹

³⁷ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

³⁸ DR 1405, Attachment 1.

³⁹ DR 1405 Attachment 1.

NorthStar confirmed that employees were profiled to complete fundamental safety training courses in 2020.⁴⁰

PG&E identified targeted refresher training in addition to the recurring fundamental safety training.

Targeted refresher training topics can change year to year based on guidance from the LOBs.⁴¹ In accordance with PG&E's Technical Refresher Training Policy, PG&E is to determine the content of refresher training annually by analyzing performance gaps, legally-mandated requirements, safety data, audit findings, organization observations and metrics.⁴²

E. RECOMMENDATION VIII-5

Recommendation

VIII-5: Profile employees to receive Human Performance training.

Background

In its May 2017 Safety Report, NorthStar found that PG&E had developed training on Human Performance error tools but this training was not profiled to any employees (i.e., no employees had been scheduled to receive it). Human Performance error tools include:

- Tailboards
- Self-Checking S.T.A.R. (Stop, Think, Act, and Review)
- Two-Minute Rule
- Questioning Attitude
- Stop When Unsure
- Phonetic Alphabet
- Three-Way Communication
- Place-keeping
- Procedure Use and Adherence.⁴³

PG&E Reported Status

Complete. PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Second Quarterly Report.⁴⁴

Results/NorthStar Assessment

Implemented.

⁴⁰ DR 1405, Attachment 16.

⁴¹ DR 1405, Attachment 1.

⁴² DR 1405, Attachment 14.

⁴³ NorthStar Safety Report, May 2017, p. VIII-28.

⁴⁴ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.

Discussion

Prior to profiling employees to take the Human Performance Training (HPT), the PG&E Academy developed web-based training courses for each operational LOB:

- SAFE-6601WBT – Human Performance Electric Ops
- SAFE-6602WBT – Human Performance Power Gen
- SAFE-6603WBT – Human Performance Gas Operations.⁴⁵

The PG&E Academy and each LOB determined which groups of employees should be profiled to complete the appropriate course. Profiles were input into PG&E's Learning Management System and the course began to appear on employees' Learning Dashboards as of May 9, 2018.⁴⁶ The HPT courses have a three-year repeat interval.⁴⁷

NorthStar confirmed the data PG&E provided in its Completion Narrative which showed the employees profiled and those who completed the HPT in 2018.⁴⁸ NorthStar also confirmed that employees were profiled to complete HPT courses in 2020 and 2021.⁴⁹

F. RECOMMENDATION VIII-6

Recommendation

VIII-6: Develop a monthly operator qualifications (OQ) status report for the Senior Vice President of Gas Operations and the President of Gas Operations. Include such information as number and type of examinations conducted, pass/fail rates, number of qualifications expiring (in 90, 60, 30 and 5 days), the number of OQ scans conducted and the results.

Background

Most Gas Operations personnel that work on gas transmission and distribution lines must possess Operator Qualifications (OQ) to perform specific tasks. Natural gas transportation is regulated at the federal level by the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the US Department of Transportation (DOT). Title 49, Subtitle B, Part 192 of the Code of Federal Regulations (CFR) provides the minimum federal safety standards for transportation of natural gas and other gas by pipeline. Subparts E, F and N of CFR 49 Part 192, stipulates the requirements of pipeline personnel and the minimum requirements for operator qualification of individuals performing covered tasks on a pipeline facility. Covered tasks are addressed in utility-specific work procedures that cover over 150 distinct activities, including welding of specific diameter pipes, repairing pressure relief valves, electrofusion of saddle joints, corrosion inspection of residential services, and excavation work. A valid OQ

⁴⁵ DR 1408, Attachments 2, 3, and 4.

⁴⁶ DR 1408, Attachment 1.

⁴⁷ DR 1408, Attachment 1.

⁴⁸ DR 1408, Attachment 4.

⁴⁹ DR 1408, Attachment 9, and DR 1409 Attachment 1.

permits an employee to work a task independently on PG&E's system. Employees that do not possess valid OQs may work on PG&E's system but must be directed and supervised by an individual possessing valid OQs.⁵⁰

In July 2016, PG&E implemented a mobile OQ card application in which each employee is assigned a card that can be scanned at any time to check their current OQ status.⁵¹

In its May 8, 2017 Safety Culture Assessment Report, NorthStar determined that PG&E did not routinely issue a comprehensive OQ report which tracks the status of key OQ program elements, such as the number of valid OQs, number of OQs tested, number of OQ tests failed, and number of expiring OQs. In addition, employees' OQ status was not reported to the VP of Gas Operations.

PG&E Reported Status

Complete. PG&E reported this recommendation as complete in its January 8, 2018, Prepared Testimony.⁵²

Results/NorthStar Assessment

Implemented.

PG&E reports the OQ status of PG&E employees but does not report the status of contractor employees. The recommendation did not specifically require the inclusion of contractor employees. PG&E provides the Risk and Compliance Committee (RCC) with monthly reports of OQ statistics. PG&E includes this data on SharePoint in its OQ Dashboard.

Discussion

As PG&E described in its First Quarterly Report, it started to compile OQ data for its employees beginning in 2017:

- In April 2017, PG&E began the weekly compilation of data on pass rates, OQ card scans, and test attendance rates.
 - This information was available to the OQ Manager on a SharePoint site and other leaders based on requests for this information
 - The information was conveyed on a monthly basis to the Gas Operations SVP, Sr. Directors, Directors, Superintendents, and Supervisors in a monthly OQ program update that was part of a scheduled morning call for gas leaders. Attending the call, however, was optional

⁵⁰ NorthStar Report, May 8, 2017, p. VIII-5.

⁵¹ NorthStar Report, May 8, 2017, p. VIII-33.

⁵² Pacific Gas and Electric Company Prepared Testimony, Safety Culture and Governance OII 15-08-019, U-39M, January 8, 2018.

- Information regarding card scans, test attendance, and lapse dates was sent on a weekly basis to Quality Management to confirm OQ status.
- In May 2017, PG&E began the monthly compilation of additional OQ information including the number of qualifications expiring in the calendar year, number of qualification exams passed, and number of qualifications removed.
 - The monthly summary dashboard included:
 - Total number of qualifications due for renewal in the current year
 - Qualifications removed due to failure
 - Qualifications renewed (through passed test)
 - Qualifications lapsed
 - Qualifications outstanding still to be renewed
 - No-show counts for scheduled testing
 - Pass rate.
 - This information was available to the OQ Manager on a SharePoint site.⁵³

PG&E's First Quarterly Report also notes that OQ holders and their supervisors are notified of OQ lapse dates 30, 60, and 90 days before lapse; this is the same process that was recommended in NorthStar's May 2017 Report.⁵⁴ PG&E does not include contractor information in its compilations of OQ status data.⁵⁵

PG&E includes an OQ Update slide in its monthly Gas Operations RCC meeting presentation. In 2020, the RCC OQ Update data consisted of: 1) Unexcused no-show rates for OQ testing, and 2) OQ first attempt pass rates and the average number of test attempts required to pass.⁵⁶

The distribution list for the RCC report has varied over time. At the end of 2020, over 60 individuals in leadership positions were on the distribution list, including: the Chief Risk Officer, five Gas Operations Vice Presidents, 19 Gas Operations Directors/Senior Directors, and 15 Gas Operations Managers.⁵⁷ PG&E regularly obtains feedback from its OQ report recipients concerning report timing and content, but does not keep a formal record.⁵⁸

⁵³ First Quarterly Report, Attachment 2, pp. 97-104.

⁵⁴ First Quarterly Report, Attachment 2, p. 98 and NorthStar Report p. VIII-33.

⁵⁵ DR1346 and 1st Quarterly Report, Attachment 2, pp. 97-104

⁵⁶ DR 1345.

⁵⁷ DR 1344.

G. RECOMMENDATION VIII-7

Recommendation

VIII-7: Conduct a review of 2014 OQs to determine if contract employees were working on PG&E's system with other expired OQs. Conduct additional re-inspections as necessary.

Background

NorthStar's May 8, 2017, Report noted that in February, May, and November of 2014, 243 contractor employees performed over 500,000 atmospheric corrosion inspections with expired OQs. PG&E became aware of this in November 2015, inspected the pipes in question and found over 18,000 cases of severe corrosion. PG&E self-reported the 2014 work performed with invalid OQs to the CPUC on September 14, 2016. PG&E did not conduct further internal analyses to determine if this problem was isolated to one contractor or to all contractor OQ work.⁵⁹

PG&E Reported Status:

Complete. PG&E reported that key milestones were complete in its First Quarterly Report.⁶⁰ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.⁶¹

Results/NorthStar Assessment

Implemented. PG&E completed this recommendation to the best of their ability. PG&E did not include crew-based work in their analysis as data was unavailable.

Discussion

As described in PG&E's July 30, 2019, Quarterly Report, PG&E reviewed the qualifications of contractors performing high-volume, non-crew-based work in 2014. At the time, PG&E used contractors for:

- Atmospheric Corrosion Inspections
- Locate and Mark
- Crew-based Construction.

PG&E currently uses contractors for leak survey work, but did not in 2014. PG&E's review concluded that no systemic qualification deficiencies were found in any of the

⁵⁹ NorthStar Report, May 8, 2017, p. VIII-32.

⁶⁰ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

⁶¹ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

contractor work areas. The results of PG&E's review are summarized in **Exhibit VIII-8**. PG&E did not review the crew-based work of contractor employees, nor does it maintain data to support this analysis.

Exhibit VIII-8
Results of PG&E's OQ Review of Non-Crew-Based Contractor Work in 2014

Area	Contractors with Invalid OQ?	Discussion
Locate and Mark	No	On November 20, 2017, PG&E provided the CPUC information regarding the OQ status of employees and contractors performing Locate and Mark work. This analysis concluded that contractors held a valid OQ while performing Locate and Mark work in 2014.
Atmospheric Corrosion Inspections	Yes	As discussed in the background section, PG&E self-reported this in 2016. After the issue was discovered, the contractor re-inspected the units.
Crew-based work	N/A	Not reviewed.

Source: Third Quarterly Report, July 30, 2019, Attachment 1, p. 50.

PG&E's analysis of 2014 Locate and Mark work found that some PG&E employees performed the work with expired OQs.⁶² Three percent of PG&E workers were performing Locate and Mark work with expired OQs.

In preventing future occurrences of contractors with expired OQs performing work on the system, PG&E has developed two applications, Pronto and Inspect, that prevent contractor employees from performing atmospheric corrosion inspections and gas leak surveys with expired OQs.⁶³

H. RECOMMENDATION VIII-8

Recommendation

VIII-8: Perform a feasibility study of PG&E training and testing of contractor employees for OQs. The study should consider the volume of students, the cost charged per unit, the availability of resources at PG&E and analysis of advantages and disadvantages.

Background

NorthStar's 2017 review found that PG&E had limited oversight over contractor OQs. PG&E administered annual qualification examinations for welding and plastic fusion, but all other OQs for contractors were administered by Veriforce, a Texas-based third-party operator qualification content and administration service. Contractor employee skills testing was performed by third-party testers that were vetted by Veriforce, and re-testing for operator qualifications was managed by the contractors. PG&E relied on the contractors to ensure

⁶² DR 1347, DR 1508, IR 329, and IR 330.

⁶³ DR 1347.

that their employees had valid training and current operator qualifications. For OQs other than welding and plastic fusion, PG&E's role in the contractor OQ process was limited to:

- Evaluating Veriforce course content
- Reviewing Veriforce testing procedures
- Reviewing field audits conducted by Veriforce.⁶⁴

NorthStar has reviewed OQ programs in natural gas distribution companies across multiple regions and found that the utilities that train their contractors side-by-side with their utility employees have the greatest control of expired OQs and work quality. In such cases, each utility is responsible for the administration of OQ tests and for determining that all contractor employees have current and valid OQs. PG&E has an expansive training center for its employees.

PG&E Reported Status:

Complete. PG&E reported this recommendation in progress in its December 30, 2018, Quarterly Report and in its April 26, 2019, Quarterly Report. Completion of the study was scheduled for May 2019. Actual completion of the study and internal review was reported as complete in PG&E's July 30, 2019, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

As described in its Completion Narrative, PG&E conducted a review of the current training and testing system and the implications of variability of demand, availability of resources, and costs to deliver current and future training and testing.⁶⁵ The scope of PG&E's analysis was based on the OQs that contractors held in 2018. PG&E evaluated the anticipated volume, costs, and resources as well as the advantages and disadvantages of changing its training and qualifications programs to NorthStar's recommendation. PG&E looked at the impact of the changes to its technical training and OQ qualifications in the areas highlighted in **Exhibit VIII-9**.

⁶⁴ NorthStar Report, May 8, 2017, p. VIII-31.

⁶⁵ Third Quarterly Report, July 26, 2019.

Exhibit VIII-9
Recommendation VIII-8 Changes Analyzed by PG&E
(Highlighted Cells Indicate Proposed Changes to Contractor OQ Training Considered
in the Analysis)

Operator	Technical Training	Safety Training	Welding Qualifications	Plastic Joining Qualifications	Operator Qualifications
PG&E Employees	PG&E Academy	PG&E Academy	PG&E Qualifications Department	PG&E Qualifications Department	PG&E Qualifications Department
Second-party contractors	PG&E Academy (Currently Independent)	Self-administered. PG&E provided content.	PG&E Qualifications Department	PG&E Qualifications Department	PG&E Qualifications Department (Currently contractor-administered. PG&E content [Note 1] or PG&E approved evaluators).
Third-party installers	PG&E Academy (Currently Independent)	N/A [Note 2]	PG&E Qualifications Department	PG&E Qualifications Department	PG&E Qualifications Department (Currently PG&E approved evaluators)

Note 1: Second-party contractors may have their own OQ evaluators. These evaluators must be trained and submit their experience to PG&E's OQ team. PG&E will then review and approve the individual to perform evaluations.

Note 2: Third-party installers are hired by PG&E customers to install new gas service facilities through an applicant design option. They do not require PG&E onboarding training because they do not perform work on behalf of PG&E.

Source: DR 1351, Attachment 2, Final Report, NorthStar analysis.

Key assumptions of PG&E's analysis were as follows:

- **Technical Training** – PG&E's current centralized training model and facilities for internal employees could accommodate training contractors, however contractor training would take place after normal business hours and on weekends at the Winters Facility. The additional cost associated with operating the facility outside of normal business hours would be \$100K-\$125K. Additionally, four employees (two instructors, one support staff, one supervisor) would need to be hired to support the additional training classes. There are some situations wherein an internal employee would receive training through an apprenticeship or on the job training and therefore no required courses exist. PG&E would need to build out courses that were solely focused on the OQ requirement.
- **Operator Qualifications** – The volume of exams to be administered would increase by 34 percent. This would require PG&E to hire an additional eight evaluators and increase the volume of materials. The estimated increase in cost to the OQ program would be \$2.4 million.⁶⁶

PG&E concluded that the structure of its current system is appropriate given the contractual expectations of second and third parties and the volume of training classes and

⁶⁶ DR 1351.

qualifications administered. As part of its analysis, PG&E developed a table of advantages and disadvantages of in-house OQ training and testing, as shown in **Exhibit VIII-10**.

Exhibit VIII-10
NorthStar Comments on PG&E's Assessment of Disadvantages of In-House Contractor Training and Testing

Issue	PG&E Assessment	
	Advantages	Disadvantages
Evaluator Practice	<ul style="list-style-type: none"> Consistency in exam evaluation. 	
Exam Delivery	<ul style="list-style-type: none"> PG&E would have direct oversight into the examination process. 	
Unknown Demand		<ul style="list-style-type: none"> PG&E may not be able to meet the demand given the variability of contract resources.
Exam Materials	Exam materials are the same for PG&E employees, PG&E contractors, and applicant installers. There is no advantage or disadvantage.	
Training Costs		<ul style="list-style-type: none"> PG&E will experience increased costs for providing the exam services through additional labor and materials. Contractors may charge the additional time to take the exam back to PG&E through project costs. Higher costs could be reflected in higher costs to customers.
Training Content	<ul style="list-style-type: none"> Training content would be the same thus ensuring individuals received the same type of training on our facilities. 	
Legal Consequences		<ul style="list-style-type: none"> Conflict with co-employment regulations would apply. [Note 2] Lose the benefit of employment law through a contracting strategy.

Note 1: PG&E's analysis states: Individuals may only be on a contractor's payroll for a few weeks or months out of a year due to the temporary nature of the work and fact that personnel rotate in and out of jobs often. The advantage of the current system is that contract organizations, in partnership with labor organizations can train and qualify personnel in accordance with the seasonality and regional locale of the contract workforce.

Note 2: PG&E's analysis states: To directly train external personnel to perform basic pipeline installation work may conflict with co-employment regulation. Joint employer status can be found by the courts when an entity exercises control over the wages, hours or working conditions of any worker—even if that worker has a stated employer.

Source: DR 1351, Attachment 2, NorthStar analysis.

I. RECOMMENDATION VIII-9

Recommendation

VIII-9: Power Generation should continue to update its apprentice programs.

Background

In its May 2017 Safety Report, NorthStar found that Power Generation apprenticeship programs had not been updated in several years.

PG&E Reported Status

Complete. PG&E reported that key milestones were complete in its First Quarterly Report.⁶⁷ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.⁶⁸

Results/NorthStar Assessment

Partially Implemented. As mentioned in the discussion section, some items are still classified as "in process" in PG&E's gap analysis of the Power Generation apprenticeship program. PG&E is committed to their completion.⁶⁹

Discussion

There are seven Power Generation apprenticeships:

- Apprentice Hydro Operator in Training (HOIT)
- Apprentice Electrical Machinist (Hydro)
- Apprentice Water System Repairperson T200 and T300
- Apprentice Electrician General Construction (GC), (shared with Electric Operations)
- Apprentice Electrical Technician (shared with Electric Operations)
- Apprentice Communication Technician (shared with IT)
- Apprentice Electrician Electric and Hydro (EL&H), (shared with Substation).⁷⁰

According to PG&E, it performed the following activities to update these programs:

- Evaluated and updated curricula within the apprenticeship programs so that it is on a review/refresh cycle of no longer than five years
- Implemented the PG&E Academy Apprentice Program Management Maturity Model for all Power Generation Apprenticeship programs. The Maturity Model tracks the implementation of an apprentice program and has specific elements required for each maturity level as summarized in **Exhibit VIII-11**. The target for the Power Generation programs was for each program to reach maturity Level 3.

⁶⁷ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

⁶⁸ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

⁶⁹ PG&E Fact Verification.

⁷⁰ Third Quarterly Report, July 26, 2019.

Exhibit VIII-11
Apprenticeship Program Maturity Matrix
Maturity for Levels 2 and 3 Maintains Criteria for Previous Levels

Level	Maturity Model Milestone
1	Quarterly Performance Review completed on-time
1	Wage Progressions Match Program schedule / Letter Agreement
1	DAS1 form sent to State within 30 days of SAP job change
1	Orientation Receipt received within 30 days of SAP job change
1	Administrative Procedures Manual
1	Program Letter Agreement
1	Maintains an active subcommittee to evaluate program performance once every year
1	Formal Training Tests
1	Maintains curriculum every 5 years
1	Notify DAS upon Graduation
1	VA Education Benefit Enrollment
1	Training completions tracked outside MyLearning
2	Dedicated Field Training Coordinator
2	Administrative Procedures Manual in Joint Apprenticeship Training Committee (JATC) approved template [Note 1]
2	Program specific Letter Agreement in JATC approved template
2	Formal Training Tests in QuestionMark
2	Local Review Committee meets twice a year to monitor apprentice performance and approve step progression
2	Maintains curriculum every 2 years
2	Maintains an active subcommittee to evaluate program performance twice a year
2	Performs annual survey to collect program performance information
2	Maintains an active subcommittee to evaluate program performance twice a year
2	Some training completions documented in MyLearning
3	Step Progression Tests include skills & knowledge
3	Local Review Committee meets Quarterly to monitor apprentice performance and approve step progression
3	Curriculum Updated Annually
3	Maintains an active subcommittee to evaluate program performance quarterly
3	Has dedicated field training coordinator assigned to manage program at a ratio of no more than 20 apprentices to field training coordinator
3	Performs annual survey to collect program performance information and builds action plans to improve program
3	Actively plans in S2 resources needs to effectively manage program
3	Has established metrics for program performance
3	All training completions captured in MyLearning
3	Training records stored in HR Approved centralized location per HR-07 Policy
3	Active Program Review Committee that reviews program content annually
3	Program uploads apprentice records directly into SAP through AskHR tool

Note 1: The Joint Apprenticeship Training Committee (JATC) is a committee composed of PG&E Management and IBEW representatives and operates under the authority of the California Department of industrial Relations, Division of Apprenticeship Standards. The JATC is responsible to ensure that all PG&E Apprenticeships meet the minimum legal requirements.⁷¹

Source: Completion Narrative Recommendation VIII-9, Third Quarterly Report.

⁷¹ DR 1411.

- In mid-2017, the PG&E Academy, with support from Power Generation and Electric Operations, assessed the Power Generation apprenticeship programs based on the framework PG&E uses to monitor its other apprenticeship programs and identified several compliance gaps as summarized in **Exhibit VIII-12**.⁷²

Exhibit VIII-12
Power Generation Apprentice Program Gap Status
Mid-2017

	JATC Admin Manual Template	JATC Letter Agreement Template	Curriculum Updated <5yrs	Step Progression Test	Dedicated FTC	Self- Paced
Apprentice Communications Tech GC	YES	NO	NO	NO	NO	NO
Apprentice Electrical Machinist (Hydro)	NO	NO	NO	NO	YES	NO
Apprentice Electrical Tech T200	NO	NO	YES	NO	YES	NO
Apprentice Electrical Tech T300	NO	NO	YES	NO	YES	NO
Apprentice Electrician (EL&H)	NO	NO	NO	NO	YES	NO
Apprentice Electrician GC	NO	NO	NO	NO	YES	NO
Apprentice Hydro Operator in Training (HOIT)	YES	NO	NO	NO	YES	YES
Apprentice Water System Repairperson T200	NO	NO	NO	NO	YES	NO
Apprentice Water System Repairperson T300	NO	NO	NO	NO	YES	NO

Source: Recommendation VIII-9 Completion Narrative, Third Quarterly Report.

- Throughout 2018, PG&E Academy, Power Generation, and Electric Operations or IT (for shared apprenticeships) met to review the Power Generation Apprenticeship Programs in detail. As a result of these meetings, PG&E developed and agreed to targeted changes to each program in order to improve the maturity level.⁷³
- The apprenticeship administrative procedures manuals for each program were submitted to the JATC in September 2018.
- In October 2018, an apprentice program gap maturity model gap analysis and associated remediation plans were submitted to the JATC for review.⁷⁴

The status of the Power Generation Apprentice Programs as of January 2021 is shown in **Exhibit VIII-13**.

⁷² Completion Narrative Recommendation VIII-9, Third Quarterly Report.

⁷³ DR 1412, Attachment 5, Completion Narrative Recommendation VIII-9, 3rd Quarterly Report.

⁷⁴ DR 1412, Attachments 8 through 16.

Exhibit VIII-13
Power Generation Apprenticeship Program Gap Status
January 2021

	JATC Admin Manual Template	JATC Letter Agreement Template	Curriculum Updated <5yrs	Step Progression Test	Dedicated FTC	Self- Paced
Apprentice Electrical Machinist (Hydro)	YES	YES	YES	In Progress	YES	NO
Apprentice Electrical Tech T200	YES	YES	YES	In Progress	YES	NO
Apprentice Electrician (EL&H)	YES	YES	YES	NO	YES	NO
Apprentice Electrician GC	YES	YES	YES	YES	YES	NO
Apprentice Hydro Operator in Training	YES	YES	YES	In Progress	YES	NO
Apprentice Communications Tech	YES	YES	In Progress	In Progress	YES	NO
Apprentice Water System Repairperson T200	YES	YES	YES	In Progress	YES	NO
Apprentice Water System Repairperson T300	YES	YES	YES	In Progress	YES	NO

Source: DR 1412, Attachment 20.

The areas shown as “In Progress” are explained below:

- As the curriculum is built, it is uploaded into the system of record and archived in accordance with: HR-7500P; PG&E Academy’s Project Close-Out and Archive Procedure.
- All Step Progression tests are created as the curriculum is completed and placed in the appropriate system of record.⁷⁵

The LOB sponsoring each apprenticeship retains the responsibility to ensure that the apprenticeship programs continue to be updated as required and address any issues or concerns raised by the JATC.⁷⁶

Power Generation conducts regular reviews of course material through the Apprenticeship Sub-committee and audit process. The Apprenticeship Subcommittee for the Power Generation Apprenticeship Program consists of at least six subject matter experts, with equal representation from union, and non-union members. On an ongoing basis, the subcommittee meets and reviews the program and proposes changes as necessary.⁷⁷

⁷⁵ DR 1413.

⁷⁶ Recommendation VIII-9, Completion Report.

⁷⁷ DR 1487.

According to PG&E, any significant updates identified are requested through the Power Generation Training Council established in 2020 and reviewed and approved by the JATC.⁷⁸

J. RECOMMENDATION VIII-10

Recommendation

VIII-10: Power Generation should work with the Academy to improve the timeliness of training completion.

Background

In its May 2017 Safety Report, NorthStar found that, as of October 2016, 40 percent of Power Generation employees had not completed the required training in six profiled courses.⁷⁹ **Exhibit VIII-14** lists six courses in which over 40 percent of profiled Power Generation employees had not completed the requisite training as of October 2016.

Exhibit VIII-14
Power Generation Courses Not Completed by over 40% of Profiled Employees

Course	Title	Complete	Exempted	Incomplete	Percent Incomplete as of Oct 2016
EQIP-0033	Boom Truck (Fixed Cab)	27	3	40	57%
EQIP-0053	Trailer	12	2	10	42%
EQIP-0081	Crane Certification - Practical Training	14	5	45	70%
SAFE-1100	Respiratory Protection	13		27	68%
SAFE-1101	Scaffolding Safety - Authorized Person	45	1	37	45%
SAFE-1102	Scaffolding Safety - Competent Person	10	3	32	71%

Source: DR 604.

PG&E Reported Status

Complete. PG&E reported that Recommendation VIII-10 was complete in its January 8, 2018, Prepared Testimony.⁸⁰

Results/NorthStar Assessment

Implemented.

Discussion

Power Generation's completion of profiled training has improved as shown in **Exhibit VIII-15**.

⁷⁸ DR 1411.

⁷⁹ NorthStar Final Report, p. VIII-46.

⁸⁰ Pacific Gas and Electric Company Prepared Testimony, Safety Culture and Governance OII 15-08-019, U-39M, January 8, 2018.

Exhibit VIII-15
Overdue Profiled Courses [Note 1]

LOB	2019	2020
Power Generation	0.11%	0.45%
Electric	0.45%	0.22%
Gas	0.08%	0.17%

Note 1: Numbers represent the percent of the workforce with overdue courses. As an example, for 2019 Electric Operations had 893 overdue training requirements, out of a total of 197,534 required courses. ($893/197,534 = 0.45\%$)

Source: DR 1416, Attachment 4, NorthStar analysis.

In April 2017, PG&E began to track training timeliness in its Business Plan Review (BPR) metrics.⁸¹ Power Generation tracks training timeliness in its monthly Dashboard BPR Performance book, and it is discussed in the weekly Power Generation Directors' Meeting.⁸² In the new Operating Rhythm, PG&E tracks training monthly in the Human Resources Key Performance Indicator (KPI) meeting. Training timeliness items to be addressed are escalated to senior leadership and/or LOB senior leaders.

K. RECOMMENDATION VIII-11

Recommendation

VIII-11: Power Generation should develop a refresher training program similar to that of Electric T&D and Gas Operations.

Background

In its May 2017 Report, NorthStar found that Electric T&D's Journeyman Refresher Training helped maintain awareness of correct and safe work techniques. The PG&E Academy's eight-person "Mobile Journeyman Training Team" delivered Journeyman Refresher Training in two 8-hour training days, typically at the employee's local service center or PG&E's remote training facilities.⁸³

PG&E Reported Status

Complete. PG&E reported that key milestones were complete in its Second Quarterly Report.⁸⁴ PG&E reported that its Internal Audit Department review of PG&E's completion narrative was complete in its Third Quarterly Report.⁸⁵

⁸¹ Completion Narrative for Recommendation VIII-10, First Quarterly Report.

⁸² DR 1416, Attachments 2 and 3.

⁸³ NorthStar Report, p. VIII-34.

⁸⁴ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 02-2019, in compliance with Decision 18-11-050, submitted April 26, 2019.

⁸⁵ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 03-2019, in compliance with Decision 18-11-050, submitted July 26, 2019.

Results/NorthStar Assessment

Implemented.

Discussion

As described in the Recommendation VIII-11 Completion Narrative, the Power Generation organization reviewed its recent injury data to identify topics to include in refresher training, and developed the curricula for refresher training courses to deliver in 2018. They also identified job classifications which were the primary target for the 2018 refresher training.⁸⁶ **Exhibit VIII-16** shows the 2018 Power Generation refresher training courses and the number of completions.

Exhibit VIII-16
2018 Power Generation Refresher Training Courses

Course	Number of Course Completions	Notes
PGEN-0114 Slips, Trips, Falls, Lifting and Strains	433	Power Generation delivered PGEN-0114 as part of the annual Safety Summit or in follow-up safety meetings to employees who did not attend the Safety Summit.
PGEN-0150WBT Water Gate Operation and Safety	131	Courses profiled to targeted employees.
PGEN-0070 2018 Adv. Circuit Breaker Refresher	62	
PGEN-0025 Plasma Cutter	127	
PSOS-0055 System Restoration HYDRO Operators	90	

Source: Recommendation VIII-11 Completion Report, Third Quarterly Report.

Power Generation's refresher training process is designed to be an annual process, in which topics are identified each year through a standard process.⁸⁷ Refresher Training topics for 2020 are listed in **Exhibit VIII-17**.

⁸⁶ Recommendation VIII-11 Completion Report, Third Quarterly Report.

⁸⁷ DR 1488, Attachment 11.

Exhibit VIII-17
2020 Power Generation Refresher Training

Topic
System Restoration Hydro Operators
Electrical Safety Program Basics
Emergency Action Plan
Lockout/Tagout (LOTO) Basics
Voltage Orders
Dam Safety Program
Dam Maintenance
Basic Surveillance & Monitoring
Basic Dam Inspections
Dam Surveillance and Monitoring
Inspection of Embankment Dam
Inspection of Concrete and Masonry Dams
Inspection of Shutoff Gates / Valves Part 1
Inspection of Shutoff Gates / Valves Part 2

Source: DR 1488, Attachment 12.

The Ninth Quarterly Report, dated January 21, 2021, states that Power Generation has continued to profile and complete fundamental safety topic courses including: Confined Space, Safety at Heights, Personal Protective Equipment and Scaffolding.⁸⁸

Power Generation employees also participate in the refresher training shown in **Exhibit VIII-7**, previously discussed in in recommendation VIII-4.

⁸⁸ Ninth Quarterly Report.

CHAPTER IX: COMMUNICATIONS

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to safety communications. **Exhibit IX-1** provides a listing of NorthStar's recommendations, their source (NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report) and where they are addressed in this report, as similar items may have been grouped or reorganized for ease of reading.

Exhibit IX-1 Communications Recommendations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
IX-1	Develop and implement a strategic communications plan that does not overwhelm employees with too much information, but effectively addresses the issues identified in the January 2015 Monitor 360 Study, the 2016 Premier Survey (and PG&E's narrative analysis.)	NorthStar's May 8, 2017 Report, Chapter IX	Individual implementation plan.	A
IX-2	Develop a consistent basis for measuring, tracking and trending employee attitudes regarding safety culture.	NorthStar's May 8, 2017 Report, Chapter IX	Individual implementation plan.	C
IX-3	Develop and implement programs similar to Electric T&D's Reach Every Employee program in Power Generation and Gas Operations.	NorthStar's May 8, 2017 Report, Chapter IX	Individual implementation plan.	D
IX-4	Assess the effectiveness of the 2016 Speak Up Culture campaign, particularly among field resources.	NorthStar's May 8, 2017 Report, Chapter IX	Individual implementation plan.	E
U-21	Implement the recommendations identified in the outside vendor's communications audit.	NorthStar's March 29, 2019 Update Report	Individual implementation plan [Note 1].	F
U-22	Revise the communications plan as necessary to address any safety and health issues that are identified in recent and on-going Premier surveys and associated analyses	NorthStar's March 29, 2019 Update Report	Implemented Under Existing Plan	B

Note 1: PG&E issued the Completion Narrative for Recommendation U-21 in the Tenth Quarterly Report, dated April 30, 2021. The narrative is titled "Completion Narrative – IX-1" and refers to the implementation of Recommendation U-21 as the "IX-1 Supplemental Plan."

A. RECOMMENDATION IX-1

Recommendation

IX-1: Develop and implement a strategic communications plan that does not overwhelm employees with too much information, but effectively addresses the issues identified in the January 2015 Monitor 360 Study, the 2016 Premier Survey (and PG&E's narrative analysis.)

Background

In its May 8, 2017, Report, NorthStar found that PG&E was overwhelming its employees with safety-related communications. Safety culture communications came from numerous sources, and there was no overall control of the amount or content of the communications. The structure, content and clarity of communications varied considerably by LOB and author.¹

At the time, PG&E used two primary surveys to measure employee attitudes. The Premier Survey and the quarterly Know/Feel/Do Survey.

- The Premier Survey is a biennial survey of all PG&E employees to measure employee engagement, including the speak up and safety cultures.² The Premier Survey consists of approximately 50 questions, grouped by category, and open-ended questions designed to elicit employee comments and feedback and measure many aspects of PG&E's culture. Results were compared to a panel of benchmark companies with an external consultant reviewing employee comments to identify opportunities to improve PG&E's safety culture.
- The Know/Feel/Do Survey was developed to assess PG&E's progress in modifying corporate culture and aligning the organization in support of performance. It was based on certain culture-shaping goals identified by PG&E Senior Officers who asked: "In a PG&E culture that's capable of delivering business results while supporting our long-term reputational interests, what do all PG&E employees *know*, *feel*, and *do*?"³

Analysis by an external consultant (Monitor 360) reviewing the 2012 and 2014 employee survey results found that PG&E was overwhelming its employees with email traffic, including safety flashes, near misses, and tailboards.⁴

PG&E Reported Status

Complete. PG&E reported this as complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

NorthStar found Recommendation IX-1 to be complete in its March 29, 2019, Update Report. In 2017 and 2018, PG&E took steps to improve the development and execution of its safety communications plan. It identified weaknesses in how it conducted its 2017 safety communications, and consequently established a Safety and Health Communication

¹ NorthStar Safety Report, May 8, 2017, p. IX-24.

² 1st Quarterly Report, Attachment 1-68.

³ NorthStar Safety Report, May 8, 2017, pp. IX-7-8.

⁴ NorthStar Safety Report, May 8, 2017, p. IX-24.

Advisory Committee in August 2017. This committee included safety leads from the LOBs as well as Corporate Communications, Corporate Safety, and Safety and Health personnel. Because the *One PG&E Occupational Health and Safety Plan* (OH&S Plan) was the primary, integrated plan for employee and contractor health and wellness, the large majority of PG&E's safety communications focused on the OH&S Plan.

In its March 29, 2019, Update Report, NorthStar recommended that PG&E continue to revise the communications plan as necessary to address any safety and health issues that would be identified in its recent and on-going Premier surveys and associated analyses.

B. RECOMMENDATION U-22

Recommendation

U-22: [Continue to revise] the communications plan as necessary to address any safety and health issues that are identified in recent and on-going Premier surveys and associated analyses.

Background

In its March 2019 Update Report, NorthStar recommended that PG&E's safety communication plan should evolve to address any safety issues identified in its safety surveys.

PG&E Reported Status

Complete. PG&E reported this as "implemented under existing plan" in its April 30, 2020, Quarterly Report.

Results/NorthStar Assessment

Not implemented. PG&E's safety communications efforts were negatively impacted by its January 2019 through June 2020 bankruptcy proceeding as well as frequent changes in the safety organization leadership.

Discussion

PG&E's safety communications efforts were negatively impacted by its January 2019 through June 2020 bankruptcy proceeding as well frequent changes in the safety organization leadership. In fact, PG&E did not have safety communications plans in either 2019 or 2020.

Although NorthStar sees no evidence that PG&E revised its communication plan based on the 2018 Premier survey results, PG&E did develop Enterprise and LOB-level action plans based on the results of the 2020 Safety Barometer Survey conducted by the National Safety Council (NSC), which is discussed in Section C of this chapter. Each LOB received Safety Barometer Survey results in December 2020. During the months of January and February 2021, the LOBs went through a 3-step process facilitated by the NSC and supported by Enterprise Health and Safety. The three steps included: (1) an analysis of the results, (2) a

determination if additional actions, beyond the Enterprise actions, were necessary, and (3) the planning of necessary future actions. A January 2020 presentation indicated that the LOB action plans would be developed in February with implementation beginning in March of that year. The draft Enterprise actions are listed in **Exhibit IX-2**.

Exhibit IX-2
Draft PG&E Enterprise Actions Based on 2020 Safety Barometer Results

#	Opportunity	Action	New (Y/N) [Note 1]
1	Safety in new employee orientation	Add safety to current remote orientation, and revise material for the return to the office scenario.	Y
2	Management participating in safety activities	Fully implement the Safety Connections program.	N
3	Field safety specialist availability, adequacy, status	Complete unification of safety teams, re-organize for more efficient support, expand rotation program for represented employees, design field safety specialist development plan.	N
4	Safety committee effectiveness	Collaborate with grassroots to close gaps, improve best practice sharing and communication.	N
5	Inspection frequency	Design communication protocol for observations dashboard	Y

Note 1: PG&E Assessment.

Source: DR 1327, Jan. 21 Safety Barometer Update.

As described by PG&E, its safety communication plans are developed and aligned with its health and safety initiatives and its safety strategy.⁵ As discussed in Section A, PG&E's 2018 communications plan focused on the recently developed One PG&E OH&S Plan.

In 2020, PG&E established an EH&S Communications Effectiveness Initiative and hired an outside vendor to examine its communications. The vendor issued a summary report on Phase I of the Communication Effectiveness Initiative in January 2021.⁶ As described in the report, the goal of the study is to assess current EH&S communications to determine what can be eliminated, streamlined, or reimaged in order to improve employee action and overall safety. Communications will be aligned with the "2025 Safety Strategy" which was developed in 2020. Recommendations include:

- **What We Communicate** – Categorize nice to know, required to know, vs. must take action; prioritize communications with a high-risk profile and require action; scale back others
- **How We Communicate** – Improve and consolidate existing channels in addition to bolstering grassroots and LOB communications
- **When We Communicate** – Introduce an editorial calendar and organize communications around a few themes per month.⁷

⁵ DR 1420.

⁶ DR 1519.

⁷ DR 1519, DRAFT_EHS_Comms Effectiveness_Phase I Snapshot_202102018.

PG&E's 2020/2021 effort to improve EH&S communications is quite similar to its 2017 effort to improve its safety communications. As summarized in **Exhibit IX-3**, some of the issues identified in 2017 were identified again in 2020, and many of the recommended strategies for 2018 were once again recommended for 2021, including the following:

- Develop a communication calendar with monthly themes.
- Prioritize what is communicated.
- Implement and revive an enterprise-wide employee safety led team aimed at improving issue resolution, best practice sharing and communications.⁸

Exhibit IX-3
Comparison of PG&E's 2017/2018 and 2020/2021
Safety Communication Improvement Efforts

2017/2018	2020/2021	NorthStar Comments
Issues Identified with Then-Existing Safety Communications Approach		
Many Safety & Health programs received somewhat equal attention, leading the audience to question enterprise priorities. ⁹	EH&S supporting many initiatives that all include a communications component, with no clear prioritization model of what's most impactful/important.	Same Issue
Enterprise communications supported a number of individual programs, but did not integrate themes or programs optimally. Communications responded to multiple requests for ad hoc or reactive communications, adding to feeling of communications "noise".	Employees experiencing information overload such as multiple safety updates in the Daily Digest each week, creating "flavor of the week" perception.	Same Issue
	Unclear feedback loops/accountability, leading to a lack of visibility into whether readers are taking the requested action, especially on high impact communications.	Newly Identified Issue
	Reliance on cascading communications without a process to determine if the full intended audience was reached.	Newly Identified Issue
	Hurdles to field employees gaining access to safety information due to work schedules, not everyone having a PG&E-owned mobile device, and more.	Newly Identified Issue
	Different teams in the company producing similar safety resources.	Newly Identified Issue
	Challenges with Outlook email distribution lists and engagement on existing apps, leading to an opportunity to explore other channels.	Newly Identified Issue
Strategies/Changes to Implement		
Streamline the messages around safety & health to a few core themes, so that employees understand the health & safety focus areas and the connection between the Safety and Health programs PG&E provides.	Categorize as nice to know, required to know, vs. must take action ; prioritize communications with a high-risk profile and require action; scale back others.	Similar Strategies
More emphasis on tangible examples of "employees having success" (e.g., case studies, testimonials) and less emphasis on generic program education.		
Better support "people channels" (e.g., safety	Improve and consolidate existing channels in addition	Similar

⁸ Ibid.

⁹ DR 934, Attachment 1.

2017/2018	2020/2021	NorthStar Comments
councils, safety business partners, safety specialists, grassroots safety teams, focus area sponsors, wellness ambassadors).	to bolstering grassroots and LOB communication.	Strategies
Help leaders throughout the company to speak authentically, consistently and frequently about safety & health.		
2018 Enterprise Communication Plan shows monthly themes.	Introduce an editorial calendar and organize communications around a few themes per month.	Similar Strategies
<p>Collaborative Communications between Marketing/Communications, Corporate Safety and Health, and LOB program managers.</p> <p>Utilization of the Safety and Health Communication Advisory Committee: The group meets throughout the year to discuss the top priority safety and health messages shared enterprise-wide. The Advisory Committee includes LOB safety leads from Electric Operations, Gas Operations, Generation, Supply Chain, Information Technology, and Customer Care, as well as Corporate Communications, Corporate Safety, and Safety and Health business partners.¹⁰</p>	<p>EH&S Field Safety Operations and Communications are teaming with LOB representatives to potentially revive an enterprise- wide, employee safety led team aimed at improving issue resolution, best practice sharing and communications.</p> <p>EH&S to create and lead a EH&S Communications Network (name to be confirmed) that will plan and support safety communications.</p> <p>Membership:</p> <ul style="list-style-type: none"> • Ask safety leads in LOBs to join (or send a delegate). • Ask SMEs from LOBs to participate. <p>Purpose:</p> <ul style="list-style-type: none"> • EH&S in cooperation with Corp Comms to present proposed quarterly editorial calendar of themes. • Acquire buy-in and ownership from LOBs to share EH&S communications with their teams to maximize reach. • Review all roles and responsibilities. • Coordinate best channels for some communications; also share EH&S content for inclusion in LOB newsletters. • Problem-solve and address feedback together. 	Similar Strategies

Source: DR 924, Attachment 1, DR 1519, DR 1020, and DR 1021, NorthStar Analysis.

C. RECOMMENDATION IX-2

Recommendation

IX-2: Develop a consistent basis for measuring, tracking and trending employee attitudes regarding safety culture.

Background

PG&E's employee surveys are described in Section A. In its May 8, 2017, Report, NorthStar found that PG&E's use of surveys to measure PG&E's safety culture was appropriate; however, it was challenging to perform meaningful trend analysis of the survey safety culture results because the questions changed from year to year.

¹⁰ DR 1020 and DR 1021.

PG&E Reported Status

Complete. PG&E reported this complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

Premier and Pulse Surveys

PG&E continues to conduct the biennial Premier Survey of all PG&E employees and also conducts a quarterly Pulse Survey, which was introduced in 2016.¹¹ The Pulse Survey is a quarterly survey of a sample of employees (typically 25 percent of employees, rotating every quarter) which measures the same attributes as the Premier Survey.¹² Contractors are not included in the employee surveys.

As explained in PG&E's December 2018 Recommendation IX-2 Completion Narrative, PG&E measures Safety Culture through the Speak Up Culture Index which was developed using the 2016 Premier Survey. PG&E's definitions of each term are as follows:

- Safety Culture – the extent to which the company encourages a culture of safety throughout the organization.
- Speak Up Culture – the extent to which employees feel PG&E creates a supportive, comfortable environment that fosters open communication about safety, compliance and ethics, and challenging the status quo.¹³

The following questions from the Premier and Pulse Surveys make up the Speak Up Culture Index:

- Employees at PG&E feel comfortable flagging problems to Officers and Directors.
- In my work group, we use mistakes as an opportunity to learn and improve.
- I feel safe at work to do or say what I think is best for PG&E.
- Good ideas are adopted at PG&E regardless of who suggests them.
- I can safely share my thoughts, concerns, and opinions with my supervisor.
- Conditions at PG&E make it safe to challenge the status quo.¹⁴

PG&E has consistently used the Speak Up Culture Index since 2017. Speak Up Culture Index results from 2017-2020 are summarized in **Exhibit IX-4**. There were no Pulse Surveys in Q3 and Q4 of the years in which PG&E conducted the Premier survey. As shown in the exhibit, there was a slight improvement in the Speak Up Culture Index scores, from 65 percent throughout 2017, to 67 to 70 percent in 2020.

¹¹ DR 876.

¹² 1st Quarterly Report, Attachment 1-68, DR 1427.

¹³ 1st Quarterly Report, Attachment 1-68.

¹⁴ Ibid.

Exhibit IX-4
Speak Up Culture Index Results
2017 to 2020

Survey	Timing	Score (Percent Favorable) [Note 1]
Pulse	Q1 2017	65%
Pulse	Q2 2017	65%
Pulse	Q3 2017	65%
Pulse	Q4 2017	65%
Pulse	Q1 2018	66%
Pulse	Q2 2018	66%
Premier	2018	67%
Pulse	Q1 2019	63%
Pulse	Q2 2019	65%
Pulse	Q3 2019	68%
Pulse	Q4 2019	66%
Pulse	Q1 2020	67%
Pulse	Q2 2020	71%
Premier	2020	70%

Note 1: Participants rank their response using a scale of 1 to 5. PG&E reports the information in three categories: Percent favorable, percent neutral, and percent unfavorable (DR 366 Attachment 1).

Source: DR 1427.

PG&E's Premier and Pulse Surveys are currently administered by an external vendor which processes and reports the survey results. The comments included in the Premier Survey are analyzed by another external consultant.¹⁵

Safety Barometer Survey

In September 2020, under the direction of the new CSO, the NSC conducted a Safety Barometer survey of PG&E. The Safety Barometer is a safety-focused survey with more safety-related questions than the Premier and Pulse Surveys.¹⁶ The NSC Safety Barometer elicited employee responses to 50 statements regarding foundational safety elements. These components were grouped into six performance categories as follows:¹⁷

- Management Commitment (7 items)
- Supervisor Engagement (9 items)
- Employee Involvement (9 items)
- Safety Support Activities (10 items)
- Safety Support Climate (10 items)
- Organizational Climate (5 items).

Going forward, PG&E anticipates conducting the Safety Barometer Survey every 8-24 months, which allows time for it to receive the survey results, analyze these results, plan

¹⁵ DR 1428.

¹⁶ DR 1462.

¹⁷ DR 1326.

appropriate actions, and then implement the plans. According to PG&E, the survey results will be trended in order for results to be compared over time.¹⁸

D. RECOMMENDATION IX-3

Recommendation

IX-3: Develop and implement programs similar to Electric T&D's Reach Every Employee (REE) program in Power Generation and Gas Operations. The REE program is an annual documented safety discussion with each employee.

Background

In its May 8, 2017, Report, NorthStar found that Electric T&D's REE was a good program to ensure leaders had annual documented safety discussions with each of their employees. The Electric T&D REE initiative was created to improve safety communication between management and bargaining unit employees. The goal of the initiative was to reaffirm management's commitment to employee and public safety and prioritize safety-related programs through one-on-one safety discussions that each employee had with their leadership. The intent of the REE program is to ensure that all employees are given a chance to have a personal conversation with their supervisors about safety and identify any barriers to doing work safely. The discussion includes the Supervisor, the Superintendent/Manager, and the employee. During the meeting, the Supervisor and Superintendent/Manager make their commitment to the employee's safety and then the employee is asked to make his or her own commitment to their own and others' safety. During the discussion both the supervisor and the employee sign a commitment letter listing specific safety behaviors they commit to exhibit.¹⁹

PG&E Reported Status

Complete. PG&E reported this as complete in its December 28, 2018 Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E exceeded NorthStar's 2017 recommendation and expanded the REE program beyond Power Generation and Gas Operations to all active PG&E employees. In 2018, PG&E's Corporate Safety Department assumed program ownership from Electric Operations, and a cross-functional group revised the program to fit the all-employee scope and set a target of completing 99.8 percent of conversations.²⁰

¹⁸ DR 1461.

¹⁹ 2017 NorthStar Report, p. IX-31.

²⁰ Recommendation IX-3 Completion Report, First Quarterly Safety Report.

In 2019, ownership of the REE program was transferred from the Corporate Safety Department to PG&E's Compliance & Ethics (C&E) Department. According to PG&E, C&E uses the REE program as part of its overall strategy to engage, encourage, and promote employees speaking up about potential misconduct related to safety issues, as well as promoting new safety ideas.²¹

According to PG&E, the REE materials available on an REE intranet site include a comprehensive toolkit of collateral and job aids to help supervisors prepare, conduct, record, and track REE conversations. The site also includes information for employees to help them prepare for their conversations with their supervisors. In those resources, PG&E provides channels for supervisors and employees to raise safety concerns, identify potential misconduct issues (including fraud), and promote and foster new safety ideas within PG&E. PG&E also provides a leader message template to each LOB to kick off the program. Senior leaders customize the communication and email it to all people leaders in their LOB.²²

REE discussions focus on employees speaking with their supervisors about safety challenges. Every supervisor is responsible for following up on the issues and ideas raised by their employees.²³ PG&E developed job aids to familiarize supervisors with the REE intent, and used its MyLearning system to track completions of REE discussions. (The employees at Diablo Canyon use a separate system). By June 30, 2018, over 99.8 percent of PG&E employees had had safety discussions with their LOB leaders, thereby reaching the intended target.²⁴ In 2019 and 2020, 99.9 percent of PG&E employees had REE conversations.²⁵

C&E regularly assesses the results of the REE program following the REE discussions. To facilitate this, C&E sent separate surveys to supervisors and employees, and conducted focus groups with selected facilitators to assess the overall 2020 REE program results. The 2020 assessment results are shown in **Exhibit IX-5**.

²¹ Ibid.

²² DR 1430.

²³ Ibid.

²⁴ Recommendation IX-3, Completion Report, First Quarterly Safety Report.

²⁵ DR 1430.

Exhibit IX-5

2020 Employee and Facilitator REE Program Assessment Results

Employee Survey Findings	
Content <ul style="list-style-type: none"> 97% of respondents said they were encouraged to discuss safety. 94% of respondents said they were encouraged to discuss possible misconduct (including fraud). 94% of respondents said they were encouraged to discuss their new ideas. 23% of respondents stated that no changes were needed to the program content. 	
Support Materials <ul style="list-style-type: none"> 5% of those who responded to the survey stated they would like more documented follow-up. 	
Structure <ul style="list-style-type: none"> 23% of respondents stated that no changes were needed to the program structure. 8% of respondents stated a preference for meeting in groups while 5% indicated they would rather meet one-on-one. 	
Facilitation <ul style="list-style-type: none"> 86% of respondents said their leader made arrangements to follow up on the topics that were discussed during their conversation. 8% of respondents stated they would have preferred to meet in person but understood that it was not possible in 2020. 	
Facilitator Survey Findings	
Course Materials Helpful in Preparing, Conducting and Recording REE Conversations <ul style="list-style-type: none"> REE Leader Guide (87%) REE Website (61%) REE 5 Minute Meeting (44%) REE FAQs (38%) 	
Topics Discussed in REE conversations (percentage of conversations that included this topic) <ul style="list-style-type: none"> Safety (98%) Misconduct including fraud (98%) New ideas (98%) COVID-19 (78%) Mental Health (58%) Bankruptcy (23%) 	
Experience as Facilitator/Suggestions for Improvement <ul style="list-style-type: none"> 16% of leaders who responded to the survey said they felt that REE conversations were redundant as they were already having regular one-on-one meetings with their employees. 3% of leaders who responded asked for more specific questions/prompts in the leader guide. 2% of leaders asked for an easier way to report what they heard in their conversations. 1% of leaders recommended employees meet with leaders other than their own. 	

Facilitator Focus Group Findings	
Structure	Structure of the REE conversations was considered to be effective. Transitioning to remote conversations because of COVID-19 was cited as a challenge but not a significant barrier. Two supervisors conducted conversations for employees who were not their direct reports and said that in these conversations they found the participants to be more willing to speak up.
Content	No significant changes to the content of the program were recommended. We did hear that a stronger emphasis on safety would be preferred with the other topics deprioritized.
Support Materials	Focus group participants requested a PowerPoint slide presentation to help facilitate conversations, especially if they will be done remotely again in 2021.

Source: DR 1430, 2020 REE Program Evaluation.

Overall, the employees rated the 2020 REE program highly, with a score of 4.72 out of 5, and the supervisors rated the program with a score of 4 out of 5, but the response rates were low. **Exhibit IX-6** provides the survey response rates.

Exhibit IX-6

2020 REE Conversations – Satisfaction Survey Responses

Target Audience	Number of Responses	Percentage of Total
Employees	2,275	10%
Supervisors	307	19%

Source: DR 1430.

C&E’s assessment of the 2020 REE program recommended that it be continued, with annual assessments of its impact. In the REE program evaluation, C&E concluded that the REE program “benefits PG&E because it creates a stronger safety culture, uncovers potential misconduct and leads to continuous improvement. By formally mandating that these conversations take place, REE critically addresses two CPUC Orders Instituting Investigation (OII): PG&E’s Safety Culture OII and its Locate & Mark OII.”²⁶

E. RECOMMENDATION IX-4

Recommendation

IX-4: Assess the effectiveness of the 2016 Speak Up Culture campaign, particularly among field resources.

²⁶ DR 1430.

Background

PG&E's Corporate Safety organization implemented the Speak Up for Safety Campaign in Fall, 2016. The focus of the Speak Up for Safety campaign was on the importance of employees speaking up and how it improves safety for themselves and others.²⁷ In the May 17, 2017, Report, NorthStar found the overall effectiveness of the campaign to be questionable.²⁸

PG&E Reported Status

Complete. PG&E reported this complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented. PG&E conducted a survey related to the Speak Up Culture Campaign in December 2017.

Discussion

PG&E conducted an enterprise-wide survey to assess the Speak Up for Safety (SUFS) campaign materials, focusing on the employees' awareness, recall, attitudes about PG&E's safety culture, as well as the relevance of the campaign message. The survey was conducted in December 2017; a year after the majority of employees were exposed to the campaign materials.²⁹

For the purposes of this analysis, PG&E defined a "field" employee as follows:

- PG&E employee (no contractors)
- Bargaining unit (International Brotherhood of Electrical Workers (IBEW), Engineers and Scientists of California (ESC), Service Employees International Union (SEIU)) full time employee and/or hiring hall worker
- Primary work location is not an office (e.g., excludes clerical workers such as customer service representatives, typists, and operating clerks, as well as many ESC jobs, such as engineers).

The breakdown of office vs. field employees completing the survey was:

- Office: 519 (79 percent of total)
- Field: 95 (14 percent)
- Unknown: 43 (7 percent) – these respondents did not provide LAN ID, so it was not possible to determine their job type.

A high-level summary of results is as follows:

- Overall awareness of the SUFS campaign was exceptionally high

²⁷ DR 347 and DR 347, Attachment 1.

²⁸ 2017 NorthStar Report, p. IX-26.

²⁹ DR 1463, IX-4 SUFS Campaign Effectiveness Survey 12/28/17.

- Recall of the phrase “Speak up for Safety” was similarly high
- The theme of the campaign and underlying messages resonated with employees
- The campaign was consistent with the safety culture that employees believe exists at PG&E
- There was little difference in survey results between office workers and field employees.³⁰

F. RECOMMENDATION U-21

Recommendation

U-21: Implement the recommendations identified in the outside vendor’s communications audit.

Background

In 2018, PG&E hired a vendor to determine the best way to communicate its safety message to supervisors without overwhelming them. The vendor completed its communications audit in October 2018 and provided PG&E with recommendations regarding its communications tactics. **Exhibit IX-7** shows the vendor recommendations as summarized in NorthStar’s March 29, 2019, Update Report.

Exhibit IX-7

Outside Vendor PG&E Communication Audit - Fall 2018 Key Findings and Recommendations Regarding Communications Tactics (as summarized by NorthStar)

Communication Tactic	Key Findings	Key Recommendations
Building a Better You (Workforce Safety and Health Pamphlet)	<ul style="list-style-type: none"> • Contains messaging and program details in one central location. • Employees can reference as they hear reinforcing messages from other sources on a continuing basis. • Covers a large amount of information with helpful call outs, bullet points, sidebars, and infographics. • Minimal time and resources to keep updated. 	<ul style="list-style-type: none"> • Use as cornerstone for long term communications strategy. • Include all focus areas. • Include summaries of initiatives at top of each page to highlight why employees should care.
Daily Digest/ @Work Articles (PG&E Intranet)	<ul style="list-style-type: none"> • Safety & Health is competing with external and internal emails and other topics on the Daily Digest resulting in low click rates/readership. • Metrics confirmed employee stories and messages from leadership are more commonly viewed than program updates or leader packets; behavioral change can be driven by lessons learned stories and leadership endorsements. 	<ul style="list-style-type: none"> • Use Daily Digest/@Work articles as supporting communication tactics, instead of the main tactic/strategy.

³⁰ DR 347 and DR 347, Attachment 1.

Communication Tactic	Key Findings	Key Recommendations
Podcasts/Videos (PG&E Intranet)	<ul style="list-style-type: none"> • Safety & Health is competing with external and internal videos/podcasts. • High production costs for limited click rate/ views. • Podcasts are more accessible to field employees and can be listened to and from work. • Podcast episodes featuring leadership highlights importance. 	<ul style="list-style-type: none"> • Shorter videos/podcasts (2 mins) • Layover text in videos to highlight key takeaways. • Steady publishing cadence for podcast episodes. • Professional host with experience in corporate communications to help create audio and visual content. • To increase views: <ul style="list-style-type: none"> - Focus on engaging topics. - Be sure the videos/podcasts are adequately promoted. - Re-purpose, as appropriate.

Source: NorthStar's March 29, 2019 Update Report.

The outside vendor's communications audit pointed out that Daily Digest, @Work articles, podcasts and videos are all forms of communication that require cooperation from the intended audience, and suggested possible opportunities to reinforce messages where employees cannot avoid them.³¹ Additional recommendations in the audit included:

- **Prioritization:** Create an editorial calendar to help ensure focus areas aren't competing against each other in order to increase message saturation.
- **Repetition:** After distributing a comprehensive set of information, subsequent materials should strive to repeatedly emphasize individual takeaways to make it easier for audiences to practice the suggested behavioral change.
- **Simplicity:** Key takeaways outlining the benefits for the reader should be consistently elevated and highlighted.
- **Shareability:** Materials should be "shareable" – that is, sufficiently entertaining to compel a user to share and discuss with colleagues and drive a change in behavior. Additional materials should be created and tailored to field employees.³²

PG&E Reported Status

Complete. PG&E reported this complete in its April 30, 2021, Quarterly Report.

Results/NorthStar Assessment

Partially Implemented. PG&E's December 2020 Recommendation Completion Narrative does not demonstrate that PG&E implemented several of the 2018 recommendations made by the outside vendor.

³¹ DR 1055.

³² Ibid.

Discussion

PG&E issued the Completion Narrative for Recommendation U-21 in the Tenth Quarterly Report, dated April 30, 2021. The narrative is titled “Completion Narrative – IX-1” and refers to the implementation of Recommendation U-21 as the “IX-1 Supplemental Plan.” The Completion Narrative, issued more than two years after the 2018 communications audit, does not address all of the outside vendor’s recommendations, as cited in **Exhibit IX-8**, below.

Exhibit IX-8 PG&E Completion Narrative – NorthStar Recommendation U-21

Area	2018 Outside Vendor Recommendation	PG&E Completion Narrative Discussion	NorthStar Assessment
Prioritization	Create an editorial calendar; this will help ensure focus areas aren’t competing against each other in an already crowded space and will help increase message saturation and, ultimately, behavior change.	The safety communications teams (corporate and line of business) continue to hold weekly meetings to review our work and surface areas that need additional support. Additionally, we review Premier Pulse data to assess attitudes on safety that are strengths/weaknesses.	Does not meet the intent of the recommendation.
Repetition	After distributing a comprehensive set of information, subsequent materials should strive to repeatedly emphasize individual takeaways to make it easier for audiences to practice the suggested behavior change.	Best example of repetition from this year would be our COVID-19 employee communications. We would frequently announce things like new policies or rules in all employee notes, re-run them in Daily Digest, put them in the Leader Review and discuss them in our all-employee calls.	This was done recently, not directly following the audit.
Simplicity	Key takeaways outlining the benefits for the reader should be consistently elevated and highlighted in materials.	This is something we’ve started to do more recently, by elevating key takeaways in some of our more densely packed communications.	This was done recently, not directly following the audit.
Shareability	Materials should be “shareable” – sufficiently entertaining to compel a user to share and discuss with colleagues and drive a change in behavior. Additional materials should be created and tailored to field employees.	Many of our communications are intended for leaders to share with their teams, such as Leader Review, 5 Minute Meetings, Toolkits and more.	Does not meet the intent of the recommendation.

Source: DR 1055, Attachment 1, DR 1425 IX-1 Supplemental Plan – Completion Narrative, NorthStar analysis.

CHAPTER X: SAFETY REPORTING/CORRECTIVE ACTION PROGRAM

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to PG&E's safety reporting and corrective action programs. **Exhibit X-1** provides a summary of NorthStar's recommendations, their origin (either NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit X-1
Summary of Safety Reporting and Corrective Action Program Recommendations

Rec. No.	Recommendation Text [Note 1]	Source	PG&E Treatment	Section Location within this Chapter
X-1	Evaluate the adequacy of the information captured by various incident tracking systems (SEMS, CAP) to ensure it is sufficient to understand the causes of incidents, perform trending analyses and other analytics, and provide timely information. Improve CAP, near hit and incident tracking and reporting systems to increase the clarity of the information, ensure the appropriate level of causal evaluation has been assigned and that all required actions have been taken before an item is closed.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	B
X-2	Track the costs and relative safety benefits of the CAP and Near Hit Programs. Increase efficiencies or modify programs as warranted.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	C
X-3	Develop an evaluation program to maximize the benefits from CAP and Near Hit Reporting.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	D
X-4	Develop an evaluation program for Serious Incident Investigations to include periodic audits of the processes by Internal Audit.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	F
X-5	Improve documentation of corrective actions for incidents and near hits subject to a Work Group Evaluation (WGE), as well as for incidents subject to an Apparent Cause Evaluation (ACE) and Root Cause Evaluation (RCE).	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	G
X-6	Report and track incidents in a consistent manner such that appropriate information may be shared across the enterprise. Develop a central repository for this information which should include an executive summary, corrective actions taken, any materials developed and the effectiveness evaluations.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	H
X-7	Develop a protocol involving concise, targeted, timely communications to notify other crews, work locations and LOBs of incidents or corrective actions that are applicable to that group.	NorthStar's May 8, 2017, Report, Chapter X.	Individual implementation plan.	I

Rec. No.	Recommendation Text [Note 1]	Source	PG&E Treatment	Section Location within this Chapter
X-8	Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S). Incorporate the specified improvements.	NorthStar's May 8, 2017, Report, Chapter X.	X-8 and X-9 grouped into one implementation plan.	E
X-9	Compare all LOB Causal Evaluation Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the WGE process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE. The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan. Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.	NorthStar's May 8, 2017, Report, Chapter X.	X-8 and X-9 grouped into one implementation plan.	E

Note 1: Many of the recommendations in this Chapter were detailed and specific. The above "Recommendation Text" does not include the detailed bullets and sub-bullets. The details are included in the "Recommendation" statement in each section that follows.

A. OVERVIEW

At the time of NorthStar's initial safety culture assessment, PG&E had, or was implementing, a variety of systems for reporting, tracking, and evaluating the causes of safety incidents, potential safety incidents, and injuries. Some of the process and systems varied by Line of Business (LOB). For ease of reference, NorthStar provides key definitions.

Types of Injuries and Incidents

Exhibit X-2 provides a list and description of the types of injuries and incidents.

Exhibit XI-2 Injuries and Incidents

Type/Classification	Description
Motor Vehicle Incidents (MVIs)	
Serious MVIs	PG&E defines a Serious MVI as one where one or more of the following conditions occur: injuries that require immediate treatment away from the scene of the incident, a vehicle is towed (any party involved), or vehicle damage exceeds \$5,000.
Preventable MVIs (PMVIs)	The National Safety Council defines a PMVI as follows: "a preventable incident is one in which the driver failed to do everything reasonable to avoid being involved in the incident."
Serious Preventable MVIs (SPMVIs)	A confirmed SPMVI is an incident that meets the definitions of an MVI, Serious, and Preventable as determined by a completed incident investigation, confirmation of the facts by a Litigation & Claims Inspector, or confirmation of the facts by LOB Leadership.

Type/Classification	Description
Workforce Injuries/Incidents	
Injury – Occupational Health and Safety administration (OSHA) Reportable	Injuries that result in death, loss of consciousness, days away from work, restricted work activity, or job transfer (collectively known as DART), medical treatment beyond first aid, and any illnesses that are significant or meet additional criteria as defined by OSHA.
Severe Injury – OSHA Definition	Effective January 1, 2015, OSHA defined severe injury an amputation, in-patient hospitalization, or loss of an eye.
Serious Safety Incident (SSI)	PG&E defines a serious safety incident as one that is determined to be life threatening, life-altering, or fatal to the public, employees or contractors resulting from work on or caused by a failure or malfunction of PG&E facilities.
Serious Injury	PG&E defines a Serious Injury as one of the following: an injury or illness involving hospitalization (for more than observation); a loss of body part (including tips of fingers); any permanent disfigurement; electrical contact or flash requiring medical attention; a serious concealed danger; a systemic incident; or use of emergency response services.
Serious Injury or Fatality-Actual (SIF)	SIFs are incidents which result in a life-threatening or life-altering injury or a fatality, defined as follows: <ul style="list-style-type: none"> PG&E defines a life-threatening injury as an “acute injury that requires immediate life-preserving rescue action, and if not applied immediately would likely have resulted in the death of that person.” A life-altering injury is “an acute injury that resulted in a permanent and significant loss of a major body part or organ function that permanently changes or disables that person’s normal life activity.
SIF-Potential (SIF-P)	An event that had a reasonable and realistic possibility (as per SIF decision logic) to result in an actual SIF.
Near Hits	An incident that occurred and did not cause harm to a person – PG&E employee, contractor, or the public – but could have resulted in injury.

Source: NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company’s Safety Culture*, prepared for the California Public Utilities Commission, Final Report, May 8, 2017.

Injury and Incident Investigation Processes

Injuries and incidents are subject to differing evaluation processes depending on the severity. At the time of NorthStar’s initial assessment, PG&E employed the following causal evaluation processes to determine the cause or reason why an incident or error occurred. A Casual Evaluation (CE) is an evaluation based on readily available information that provides reasonable assurance that the cause of a problem is determined and will be corrected. Management determined what type of causal evaluation was appropriate based on the significance and frequency of incident.¹ The determination could vary by LOB.

- **Root Cause Evaluation (RCE)** – the most structured, formal evaluation process that requires a team and uses industry-accepted analysis methods to determine the root cause of a problem. Corrective actions must be developed and effectiveness reviews are performed after actions have been in place for a specified period of time. Serious safety incidents (SSI) and high risk items required an RCE. An SSI is an incident that

¹ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company’s Safety Culture*, prepared for the California Public Utilities Commission, Final Report, May 8, 2017.

is determined to be life threatening, life-altering, or fatal to the public, employees or contractors resulting from work on or caused by a failure or malfunction of PG&E facilities.

- **Apparent Cause Evaluation (ACE)** - a template-driven evaluation that can be completed by one or two evaluators in about 30 days. An ACE is based on readily available information that provides reasonable assurance that the cause of a problem is determined and will be corrected. ACE's may have, but are not required to have, an effectiveness review plan. Depending on the nature of the issue, medium risk items typically received an RCE or a Work Group Evaluation (discussed below).
- **Work Group Evaluation (WGE)** - a less structured, informal evaluation based on a work group's experience, knowledge, and understanding of associated risks, and their ability to determine that the cause of a problem is identified and will be corrected or improved. A WGE takes less than 2 days and involves a subject matter expert and supervision.
- **Trend Only** - A Corrective Action Program (CAP) specialist may designate CAP items as "trend-only", that is, there is no required causal evaluation. This takes about 5 minutes. These items are used for aggregate trending. Low Risk items are either closed directly as a trend-only item, or the likely cause is evaluated using a WGE. Low Risk items might include minor injuries involving only first aid, limited or no damage to assets or threat to continuity of service, or inspection, audit or quality control finding with limited or no regulatory action.²

B. RECOMMENDATION X-1

Recommendation

X-1: Evaluate the adequacy of the information captured by various incident tracking systems (SEMS [Safety and Environmental Management System], CAP) to ensure it is sufficient to understand the causes of incidents, perform trending analyses and other analytics, and provide timely information. Improve CAP, near hit and incident tracking and reporting systems to increase the clarity of the information, ensure the appropriate level of causal evaluation has been assigned and that all required actions have been taken before an item is closed.

Background

In its May 8, 2017, Report, NorthStar found that PG&E used several different systems to track near hits and incidents. At the time of NorthStar's review there were four primary systems: the Nurse Report Line, the Safety and Environmental Management System (SEMS), Event Reporting Engine (ERE)/Rapid Incident Notification System (RINS), and the Corrective Action Program (CAP). The systems contained differences in information and reporting requirements and made it difficult to perform comparative analyses between the LOBs and for the enterprise. **Exhibit X-3** provides an overview of the systems.

² DR 004, Supplement 1, Attachment 8.

Exhibit X-3 Incident Reporting Systems

System	Deployment Date	Data
Report of Occupational Injury or Illness (ROII)	Pre-2013	<ul style="list-style-type: none"> Employee Injury Data MVI data Electric Incidents
Nurse Line	2012	<ul style="list-style-type: none"> Employee Injury Data
Safety and Environmental Management System (SEMS)	May 2013	<ul style="list-style-type: none"> Injury data from Nurse Line with additional data entry MVI data (web portal and mobile apps) Near Hits for S&SS, Power Generation (until 2016), and other LOBs (e.g., Customer Care and IT) in effect in 2017
Event Reporting Engine (ERE)/Rapid Incident Notification System (RINS)	Late 2012/early 2013	<ul style="list-style-type: none"> Electric Operations Incidents, MVIs, Injuries Electric Operations Near Hits
CAP	2013 – 2017	<ul style="list-style-type: none"> Near Hits for Gas and Electric Corrective Action Submittals Late 2016/2017 PG&E plans to automatically route non-serious injuries to the CAP system following intake

Source: NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, Final Report, May 8, 2017.

PG&E Reported Status

Complete. PG&E reported this item complete in its January 8, 2018, Prepared Testimony in OII 15-08-019.³ PG&E reported that its Internal Audit Department had completed its review of the completion narrative in its First Quarterly Report dated December 28, 2018.

Results/NorthStar Assessment

Implemented. PG&E effectively consolidated incident tracking systems; however, the quality and consistency of the data needs improvement.

- The methodology for populating CAP could be more detailed.
- Effectiveness review techniques are not well-defined.⁴
- CAP data is inconsistent, with missing risk scores resulting in cause evaluations that do not comply with training, standards, and procedures.
- Motor vehicle incidents are coded in two different ways: MVI and Motor Vehicle Incident. According to PG&E, it accepts both coding options.⁵
- Effectiveness reviews of the corrective actions taken are not completed in a timely manner nor consistently coded in the database.

³ Pacific Gas and Electric Company Prepared Testimony, Safety Culture and Governance OII 15-08-019, U-39M, January 8, 2018.

⁴ DR 1471-Attachment 1 (Utility Procedure: GOV-6102P-06, Rev: 1, dated 3/10/20).

⁵ PG&E Fact Verification.

Discussion

PG&E completed the integration of SEMS and CAP in July 2017, when all remaining LOBs had access to CAP. Diablo Canyon Power Plant (DCPP) established a Corrective Action Program in 1984 in response to a nation-wide Institute of Nuclear Power Operations (INPO) initiative. In October 2013, Gas Operations implemented a modified version of the DCPP CAP. Since that time, PG&E further modified the CAP with the intent to implement it enterprise-wide across all LOBs. It is intended that CAP would provide standardized governance and innovative tools for PG&E personnel to easily report, prioritize, track, trend and resolve issues, resulting in an enhanced safety culture, reduced risk, and a more efficient and compliant organization. CAP was rolled out to Safety & Shared Services (S&SS) in October 2015. CAP was implemented in Power Generation in July 2016, and Electric Operations in November 2016. PG&E projected that it would implement CAP throughout the organization by July 2017, and that all LOBs will use the CAP system to record near hits by the end of 2017.⁶ To date, all activities have been completed.

ERE/RINS was retired when Electric Operations adopted CAP. PG&E uses a third-party data warehouse to perform trending and analytics using the information collected by CAP and SEMS. NorthStar tested the CAP database and found the database consistently captures both MVI and Injury Data.⁷ The integration of data will assist PG&E in trending analyses and other analytics as there is one repository for all incidents.

Depending on the nature of the incident, PG&E currently uses one of the casual evaluation types described in **Exhibit X-4**.

Exhibit X-4 Risk and Causal Evaluations

Risk Score	Risk Determination	Causal Evaluation Types
1A, 1B, 1C, 1D, 2A, 2B, 3A	High Typically involves SIFs, widespread loss of service, damages, environmental impact	RCE
2C, 2D, 3B, 3C	Medium SIF potential and less impact than seen for high-risk score	CE or ACE
3D, 4A, 4B, 4C, 4D	Low Minor injuries and minimal impacts on service, system assets, environment etc.	CCE
Not scored	Level-5 Action required but no impact to safety, reliability, compliance, quality etc.	WGE

Source: DR 1364, 1483, 1484, 1419, Attachment 42, 1471.

NorthStar obtained electronic file containing enterprise-wide CAP records for the period June 2017 to February 2020. NorthStar compared the causal evaluation methodology and the assigned risk scores, and found improvements are possible:

⁶ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, prepared for the California Public Utilities Commission, Final Report, May 8, 2017.

⁷ DR 1174.

- Risk scores were frequently missing, but a causal evaluation type was assigned, as shown in **Exhibit X-5**. NorthStar originally suggested hard controls to require the coding of risk scores before a causal evaluation can be determined. PG&E responded that it was not possible.

Exhibit X-5
Missing Risk Scores in CAP Database

Dataset	Number of Missing Risk Scores	CE Type
2018 Q1	87	All WGE
2018 Q2	140	All WGE
2018 Q3	53	All WGE
2018 Q4	78	All WGE
2019 Q1	63	All WGE
2019 Q2	111	All WGE
2019 Q3	102	101 WGEs and 1 ACE
2019 Q4	76	75 WGE and 1 EFR
2020 Q1	4	All WGE
2020 Q2	4	All WGE
2020 Q3	8	All WGE
2020 Q4	13	All WGE
Total	741	739 WGE, 1 ACE, 1 EFR

Source: DR 1174 and 1419.

- The preponderance of causal evaluations were assigned a WGE. Some WGEs include high risk incidents. According to PG&E's Utility Procedure: GOV-6101P-08, Rev :1: "Cause evaluations are only required for issues that meet Safety Criteria as described above [SSIs, SIF-Actual, and SIF-Potential]. For all other CAP issues, including high and medium risk, a work group evaluation (WGE) or close to trend (CTRD) are acceptable evaluation types."⁸ Gas Operations has its own minimum requirements for cause evaluations.⁹
- Causal evaluation assignments do not always comply with PG&E Standards. PG&E Standard-6102S, Enterprise Causal Evaluation Standard requires an RCE for all SIF actuals, and an ACE for SIF-P incidents.¹⁰ NorthStar tested the CAP database and found that RCEs and ACEs were not conducted as required in eight of 124 instances – one SIF actual and seven SIF potentials.
- PG&E Standard 6102S Section 3.5 requires that: "Each RCE and all SIF Actual and Potential CEs must include an Effectiveness Review Plan." NorthStar tested a sample of PG&E's RCEs, SIF Actuals and SIF Potentials for Effectiveness Reviews and found that effectiveness reviews were not always completed as required.¹¹

⁸ NorthStar analysis, DRs 1174, 1419, and 1471-Attachment 4.

⁹ DR 1471-Attachment 4

¹⁰ DR 1175 (6101-P), DR 1364, Attachment "Generic Standard Template".

¹¹ NorthStar's first sample included ten CAP incidents requiring effectiveness reviews found in the CAP database for 2018-Q1. NorthStar found that only six effectiveness reviews could be located over the subsequent 18 months of data. For the data from 2018-Q1 to 2019-Q2, effectiveness reviews were not effectively cross-referenced to the original CAP issue. (DR 1174) NorthStar's second sample included eleven CAP incidents requiring effectiveness reviews from 2020-Q1. NorthStar found that as of December 31, 2020, eight

- Utility Procedure: GOV-6102P-06 (3/10/20, Rev 1), requires that the Cause Evaluator “DETERMINE the timeframe to perform the review (usually no more than 6 months after completing the last corrective action).”
- NorthStar found that is not USUALLY the case. Ten issues required EFR reviews in Q1 2018, NorthStar found six completed reviews in the following nine months of data. In Q1 2020, eleven issues required effectiveness reviews and resulted in nine completed in the subsequent nine months. In the Q4 2020 CAP data, NorthStar found that the “reference issue” field in performed Effectiveness Reviews was missing in four out of twelve reviews.

According to PG&E, GOV-6102S and GOV-6102P-08 have both been updated in 2021 to incorporate added requirements for cause evaluations and effectiveness review; however, the revised standards and procedures were not provided for NorthStar’s review during fact verification.¹²

C. RECOMMENDATION X-2

Recommendation

X-2: Track the costs and relative safety benefits of the CAP and Near Hit Programs. Increase efficiencies or modify programs as warranted.

- Continue to monitor CAP backlogs and response times. The Nuclear Industry acknowledges the potential administrative burden associated with Corrective Action Programs and other issues associated with excess reliance on CAP reporting including the following:
 - Shift by station leaders from individual coaching and other programs to reliance on CAP for work tracking or low-level issues.
 - Trending all performance issues through CAP instead of considering alternatives.
 - Resource intensive causal evaluations performed when not required.
 - Excess corrective actions and additional reviews of low-risk items in the interest of risk avoidance.
- Improve efficiency of CAP and Near Hits programs as workload levels increase.
 - Share efficiency improvements and best practices made by DCCP and Gas Operations with other LOBs.
 - Clarify the types of items that should be classified as CAP or near hits, versus other reporting system.

effectiveness reviews were completed. NorthStar also found that while cross-referencing the efficiency reviews to the initial CAP issue has improved, it is still not consistently implemented. For example, the field, “Reference Issue”, populated for Effectiveness Reviews lines, was not populated in 40 percent of the entries in the 2020-Q4 data. (DR 1419).

¹² PG&E Fact Verification. NorthStar reviewed the following versions: DR 1471 (GOV-6101S, dated 9/17/2020, Rev 11; GOV-6101P, dated 6/16/2020, Rev 1; GOV -6102S, dated 3/10/2020, Rev 2; GOV-6102P, dated 3/10/2020, Rev 1) and DR 1385 (SAFE-1004S, dated 9/12/2018, Rev 5).

- Consider alternative reporting mechanism for certain low risk, trend items.
- Potentially eliminate non-work items from the near hit reporting or providing further clarification as to what should be considered a near hit.

Background

In its May 8, 2017, Report, NorthStar found that a variety of individuals, organizational groups and teams/committees were charged with review and analysis of the incidents and notifications generated by the various reporting systems, representing a significant level of investment in these systems and processes.

Review teams analyzed all near hit submittals and assigned a corrective action owner. Near hit notifications averaged about 56 per week during the 31-month period January 1, 2014, through July 31, 2016, or 7,173 notifications over 134 weeks. Gas CAP notifications averaged 163 per week during the 33-month period, October 28, 2013, through July 25, 2016, (23,408 notifications over 143 weeks). Within Gas Operations, CAP submittals were roughly 4,000 the first year, 10,000 the second year and 15,000 were expected the third year. Gas and S&SS CAP-related employee and IT costs totaled at least \$3.2 million in 2014 and \$9.0 million in 2015. There are many people devoted to the CAP review process.

PG&E cast a wide net on the issues to be included within CAP and classified as near hits. This resulted in issues that were not related to PG&E or related to safety. The numerous issues investigated resulted in increased costs and the potential to overlook important issues.

PG&E Reported Status

Complete. PG&E reported that its Internal Audit Department's review of its completion narrative was complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E assembled a cross-functional/cross LOB team to implement this recommendation. The team conducted a consolidated study that:

- Identified soft benefits of the CAP program, including accessibility, visibility, accountability, sustainability, reporting and stronger culture.
- Identified hard benefits in construction, the learning academy, process improvements and efficiencies, materials, compliance, affordability, and risk mitigation. Savings in these categories were quantified and reported.
- Identified program governance costs by LOB.
- Identified program inefficiencies.
- Established a process for CAP backlog monitoring.
- Reviewed the process for near hit reporting.

- Developed a single landing system for all PG&E reporting systems.¹³

NorthStar reviewed the work papers associated with cost and savings quantification and found them to be thorough and complete.¹⁴

D. RECOMMENDATION X-3

Recommendation

X-3: Develop an evaluation program to maximize the benefits from CAP and Near Hit Reporting.

- Perform ongoing quality and compliance reviews of the following:
 - Accuracy of the categorization of the submittal.
 - Assigned priority level.
 - Consistency with procedural requirements.
 - The selection of a causal evaluation type (for near hits) and documentation of the decision-making process.
 - Quality and timeliness of the casual evaluation.
 - For CAP, the quality and timeliness of communications to submitters, notifying them the notification has been received and notifying them of the action(s) taken/resolution.
 - Quality and timeliness of the corrective actions taken and the communication of root causes and corrective actions to ensure appropriate communications have taken place and the correct audience has been notified.
- Engage Internal Audit to perform periodic assessments of CAP and the Near Hit Reporting Program.

Background

In its May 8, 2017, Safety Culture Assessment, NorthStar reported that PG&E was in the process of implementing confidential reporting systems in the form of near hits and CAP throughout the organization; however, implementation would not be completed until 2017. Indications at the time were that employees generally felt comfortable using the systems, but field use was relatively low, and it was unclear whether CAP had moved the needle on safety.

Other than an overall increase in safety awareness, at the time of NorthStar's initial review, it had yet to be proven whether the near hit reporting process would contribute to meaningful and constructive safety improvements. In order to increase near hit and safety awareness, PG&E had decided to include near hits that happened at work and outside of work in the database. NorthStar found that very few of the near hits reported at that time were high risk.

¹³ DR 1371.

¹⁴ DR 1509.

PG&E Reported Status

PG&E reported this recommendation as complete in its January 8, 2018, Prepared Testimony in OII-15-08-019. PG&E reported that its Internal Audit Department's review of the completion narrative was complete in its First Quarterly Report issued December 28, 2018.

Results/NorthStar Assessment

Implemented.

Discussion

The effectiveness of the CAP program is dependent on the integrity of the data maintained. NorthStar believes that consistent data can be analyzed and trended to provide efficient evaluation and dissemination of information. Inconsistencies found in the CAP database are discussed under Recommendation X-1. As PG&E has moved toward a centralized CAP system for all LOBs, data consistency and CAP issue documentation across the enterprise should be standardized.

PG&E adopted a qualitative as opposed to quantitative implementation of this recommendation. A Corrective Action Review Board (CARB) for each LOB provides senior management oversight of the CAP.¹⁵ The CARB is a group of subject matter experts responsible for reviewing all RCEs, cause evaluations for SIF-Ps, RCE and ACE effectiveness reviews, and other casual evaluations as determined by the CARB chair. As described in the enterprise-wide procedure:

- CARB reviews should focus on the completeness and comprehensiveness of the investigation, and alignment of the problem, cause analysis and corrective actions.
- CARB reviews include corrective action quality assessment to ensure corrective actions are appropriate in hierarchy of control, Specific, Measurable, Actionable, Realistic, and Timely (S.M.A.R.T.) and the time to complete the corrective action(s) is reasonable and justified.¹⁶

Each CARB consists of 6-7 members who meet as necessary. **Exhibit X-6** provides the number of annual meeting by LOB. NorthStar found the meetings were meaningful and were scheduled as needed.¹⁷

Exhibit X-6
Number of CARB Meetings

LOB	2018	2019	2020	Comment
Gas Operations	5	20	17	2018 – Records for Q4 only.
Electric Operations	Unknown	8	24	Files not archived from 2018 through June 2019.

¹⁵ DR 1232.

¹⁶ DR 1232, Attachment “GOV-6102S+Enterprise+CE+Std++_+Attachment+1+CARB+Charter”.

¹⁷ DR 1356.

LOB	2018	2019	2020	Comment
Information Technology and Cyber Security	1	1	1	Three meetings to support the three CEs.
Power Generation	4	22	21	2018 – Records for Q4 only.
Customer Care	0	0	0	No CEs required.
Safety and Corporate Services	0	0	3	No CEs required until 2020.

Source: DR 1356.

PG&E also established CAP Review Teams (CRTs). The CRTs are comprised of LOB subject matter experts and members of the CAP team.¹⁸ Subject matter experts are included in the teams to ensure significant issues are not overlooked. The CRTs are responsible for initial review of issues, evaluating risk, updating key issue categories, and collecting more information as needed. The CRTs assign the causal evaluation type or close an issue “to trend.”¹⁹

In addition to the establishment of the review teams, PG&E developed a CAP Dashboard to provide a real-time presentation of issue status and key indicators for the Enterprise CAP.²⁰

From 2018 to 2020, PG&E’s Internal Audit Department conducted five audits which included elements of the CAP program and its effectiveness:

- A 2018 review of Gas Operations’ process and controls for complying with applicable regulatory requirements for self-reporting potential violations. Gas Operations used specific codes within CAP to denote potential self-identified violations.²¹
- As part of a 2018 review of clean air permits for compressor stations, Internal Audit identified deficiencies in the ACE associated with a self-reported permit violation and found the ACE and associated contributing causes were insufficiently documented and closed in CAP before the corrective actions were completed.²²
- As part of Internal Audit’s 2018 audit plan, it evaluated the utility’s processes and controls for employee safety incident casual evaluations and management of corrective actions.²³
- As part of an audit of PG&E’s pipeline patrolling procedures, Internal Audit noted that 2 of 10 (20%) observations related to damaged pipeline markers were closed out in CAP without the required follow-up completed.²⁴
- As part of a follow-up review addressing a prior high-risk audit issue, Internal Audit reviewed the RCE and CAP entries and identified no deficiencies.²⁵

¹⁸ DR 1232, Attachment “GOV-6101S_GOV-01SEnterprise+Corrective+Action+Program+Standard+Rev+11”.

¹⁹ DR 1232, Attachment “GOV-6101S_GOV-01SEnterprise+Corrective+Action+Program+Standard+Rev+11”.

²⁰ December 28, 2018, Quarterly Report, CAP Dashboard Demo.

²¹ DR 1354, Attachment “18-006”.

²² DR 1354, Attachment “18-007”.

²³ DR 1354, Attachment “19-036”.

²⁴ DR 1354, Attachment “20-038”.

²⁵ DR 1354, Attachment “20-045”.

E. RECOMMENDATIONS X-8 AND X-9

Recommendations

X-8: Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S) [referred to as the Kern Standard]. Incorporate the following improvements:

- Determine whether RCEs should be required for: 1) an injury involving inpatient hospitalization for a period in excess of 24 hours for other than medical observation; and, 2) a loss of any part of the body (including eye), or any serious degree of permanent disfigurement (includes tissue damage without loss of bone).
- Require documentation of the rationale for the selection of the CE type for all incidents, including near hits.
- Require assignment of responsibility for ensuring all corrective actions are thorough, appropriate, have been completed, and have been appropriately communicated.
- Require assignment of responsibility for ensuring that the effectiveness evaluation has been completed, is thorough, and any findings have been effectively addressed.
- Include a process flow/timeline that extends to the completion of the effectiveness evaluation, similar to that included in Utility Standard: SAFE-1004S Publication Date: 05/31/2015, Rev: [1].
- Provide a summary to all employees for the cause and corrective actions taken/to be taken once an incident investigation is complete (ACE/RCE). All PG&E employees are notified via email within 24 hours of the incident providing a brief summary of the incident. There is no such requirement for closure. NorthStar's review of safety-related communications to all employees evidenced the initial notification and the lack of any commensurate notification upon completion of the investigation.

X-9: Compare all LOB CE Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the WGE process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE. The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan. Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.

Background

In 2015, the Commission's Safety Enforcement Division (SED), Bayview/Hunters Point Community Legal (BHP Community Legal) and PG&E entered into a settlement agreement precipitated by a contractor fatality at the Kern Power Plant in 2012, and subsequent injuries to the public. Among other things, the settlement agreement required PG&E to implement an Enterprise Causal Evaluation Standard (referred to as the Kern Standard).

During its initial safety culture assessment, NorthStar reviewed PG&E's Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S), developed as a result of the Kern Settlement Agreement, and PG&E's Serious Safety Incident Investigation Standard (SAFE-1004S) and identified a number of inconsistencies between the two standards. NorthStar recommended that PG&E develop a single standard that would include both GOV-6102S and SAFE -1004S and address the identified discrepancies and deficiencies.

As part of its initial safety culture assessment, NorthStar also reviewed the Enterprise and LOB causal evaluation procedures and identified a number of inconsistencies.

PG&E Reported Status

PG&E grouped recommendations X-8 and X-9 in one implementation plan, and reported that key milestones were complete in its December 28, 2019, Quarterly Report. PG&E reported that its Internal Audit Departments review of the completion narrative was complete in its Quarterly Report issued April 26, 2019.

Results/NorthStar Assessment

X-8: Implemented, but improvements possible.

X-9: Partially Implemented.

Discussion

At the time of NorthStar's initial safety culture assessment, both utility causal evaluation standards referenced in NorthStar's recommendation (SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S)) addressed the investigation process for serious safety incidents. Each LOB also had a causal evaluation standard. In response to NorthStar's findings, PG&E's Corporate Safety Investigations (CSI) and ECAP teams reviewed all causal evaluation standards (Enterprise and LOB) and confirmed NorthStar's findings.²⁶ In response to NorthStar's recommendations, PG&E revised Utility Standard SAFE-1004S to address the notification and reporting process, rather than the causal evaluation process, thus eliminating the conflicts and inconsistencies.²⁷ PG&E also revised the Enterprise Casual Evaluation Standard (GOV-6102S) and retired the LOB cause evaluation processes and procedures.²⁸ PG&E also established enterprise-wide guidelines for communication of the corrective actions and the effectiveness reviews (the revised SAFE-1004S), as these had previously been tracked separately by the LOBs. As described in its completion narrative:

To ensure consistent enterprise wide application of cause evaluation processes and procedures, a single Cause Evaluation process was developed. Formulation of the single process involved a revision to the existing Standard (Utility Standard: GOV-6102S, "Enterprise Cause Evaluation Standard"), development of a new Procedure (Utility

²⁶ Completion Narrative, April 26, 2019, Quarterly Report.

²⁷ Comparison of SAFE-1004S, dated 1/6/2016, Rev: 1 (DR 757 Attachment 1) and SAFE-1004S, dated 9/12/2018, Rev: 5 (DR 1063 Attachment 1).

²⁸ DRs 1232, 1387, and 1471. April 26, 2019, Quarterly Report.

Procedure: GOV-6102P-06, “Enterprise Cause Evaluation Process Procedure”) and the PG&E Cause Evaluation Manual. This suite of documents provides the basis for the single enterprise wide cause evaluation process.

The Standard and the Procedure are located within the PG&E Guidance Document Library (GDL) while the PG&E Cause Evaluation Manual is housed on the Enterprise Corrective Action Program (ECAP) intranet site. Active hyperlinks to the Cause Evaluation Manual are included within the Enterprise Cause Evaluation Process Procedure.²⁹

Exhibit X-7 provides the disposition of each of the recommended improvements to PG&E’s procedures.

Exhibit X-7
Recommendations X-8 and X-9 Completion Status

Recommendation		Implem. Status Assessment	Reason
8.1	Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S). Incorporate the following improvements:	Implemented.	SAFE-1004S modified to address notification and reporting process, so the two standards are distinct.
8.2	Determine whether RCEs should be required for: 1) an injury involving inpatient hospitalization for a period in excess of 24 hours for other than medical observation; and 2) a loss of any part of the body (including eye), or any serious degree of permanent disfigurement (includes tissue damage without loss of bone).	Implemented.	SAFE-1004S modified to address notification and reporting process. GOV-6102S defines causal evaluation requirements.
8.3	Require documentation of the rationale for the selection of the CE type for all incidents, including near hits.	Implemented, improvements possible.	Causal Evaluation requirements defined in GOV-6102S. Other CAP evaluations must comply with Utility Manual GOV-6102M. Procedures were modified and CE selection is documented in CAP; however, NorthStar identified classification issues as discussed in Section B. earlier in this chapter.
8.4	Requires assignment of responsibility for ensuring all corrective actions are thorough, appropriate, have been completed and have been appropriately communicated	Implemented.	Section 6 of GOV-6102P-06 (3/10/2020, Rev: 1) provides the process owner requirements.
8.5	Requires assignment of responsibility for ensuring that the effectiveness evaluation has been completed, is thorough and any findings have been effectively addressed.	Implemented.	Standard GOV-6102S, Section 4.4.10 assigns verification of the effectiveness review to the RCE Team Lead.

²⁹ April 26, 2019, Quarterly Report.

Recommendation		Implem. Status Assessment	Reason
8.6	Include a process flow/timeline that extends to the completion of the effectiveness evaluation, similar to that included in Utility Standard: SAFE-1004S Publication Date: 05/31/2015, Rev: [1].	Implemented.	Standard GOV-6102S Appendix A includes effectiveness evaluation in the process timeline.
8.7	Provide a summary to all employees for the cause and corrective actions taken/to be taken once an incident investigation is complete (ACE/RCE). All PG&E employees are notified via email within 24 hours of the incident providing a brief summary of the incident. There is no such requirement for closure. NorthStar's review of safety-related communications to all employees evidenced the initial notification and the lack of any commensurate notification upon completion of the investigation.	Implemented, improvements possible.	Initial notification via email. Final follow-up notification via Daily Digest, rather than email.
9.1	Compare all LOB CE Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the WGE process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE.	Implemented.	PG&E replaced six LOB CE processes with an enterprise procedure, GOV-6102S.
9.2	The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan.	Not Implemented. According to PG&E, this was completed in its 2021 update of both guidance documents; however, the documents were not provided to NorthStar during fact verification.	Communication process is not specified in GOV-6102S or GOV-6102P. PG&E cites pages 27 and 28 of the Cause Evaluation Manual as containing the instructions. NorthStar's review found the manual does require interim and final effectiveness reviews, however the communication methodology is not specified.
9.3	Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.	Implemented.	Procedure GOV-6102S requires that the RCE Team Lead verifies that a new CAP issue was submitted for an effectiveness review. The CARB PG&E tracks effectiveness reviews as separate issues in the CAP database. The CAP database is the system of record. Each Effectiveness Review is assigned a new issue number and is cross referenced to the original CAP issue.

Source: DRs 1232, 1385, 1419, 1471, and 1515.

F. RECOMMENDATION X-4

Recommendation

X-4: Develop an evaluation program for Serious Incident Investigations to include periodic audits of the processes by Internal Audit.

Background

Consistency is critical in performing reviews and implementing corrective actions. Failure to comply with standards and complete timely investigations could result in missed opportunities and potentially future safety incidents that could have been avoided.

In its May 8, 2017, Safety Culture Assessment Report, NorthStar found that the Enterprise Causal Evaluation Standard (also referred to as the Kern Standard – See Section E. Recommendation X-8 for further discussion) differed from PG&E's Serious Safety Incident Investigation Standard (Utility Standard: SAFE-1004S, Publication Date: 05/31/2015, Rev: 1. NorthStar was unclear as to why these differences were appropriate.

As described in NorthStar's May 8, 2017, Report, the Serious Safety Incident Investigation Standard addressed the serious safety incidents that are included in the Kern Standard, but also applied to an injury involving hospitalization in excess of 24 hours for other than observation, or a loss of any part of the body (including an eye) or any serious degree of permanent disfigurement. The Serious Safety Incident Investigation Standard did not describe the type of causal evaluation required for any event, and the two standards had different communication protocols.

- The Kern Standard communication protocol requires a preliminary (limited) internal communication (within 48 hours), an Interim Report at 60 days and a Presentation of Findings & Corrective Actions to LOB Leadership at 90 days.
- The Serious Incident Investigation Standard requires an email to all employees within 24 hours, an Interim Report at 30 days, a Presentation of Findings & Corrective Action to LOB Leadership at 45 days, and a closing email to all employees at 60 days.
- Roles and responsibilities were more extensively defined in the Kern Standard. The list of definitions was also greater.
- The Kern Standard Process Timeline did not include steps for follow-up on the Effectiveness Review Plan or the completion of the Corrective Actions. The Serious Incident Investigation Process Flow requires Corrective Action Validation and a Final Report and Effectiveness Evaluation to be provided to the Casual Evaluation Committee at 180 days.
- In what appeared to be recognition of the inconsistencies in the time requirements specified in the two standards, PG&E updated the Serious Safety Incident Investigation Standard (and renamed it). The then current version was Rev:1, Publication Date 1/6/2016. While this made the communication timeline consistent with the Kern Standard, it introduced other problems.

PG&E Reported Status

Complete. PG&E reported this recommendation was complete and that its Internal Audit Department had completed its review of the completion narrative in its December 28, 2018, Quarterly Report. PG&E further stated that its Internal Audit Department had accepted the implementation plan without comments.³⁰

Results/NorthStar Assessment

Implemented.

Discussion

As described in the discussion of the implementation of NorthStar Recommendation X-8, PG&E revised Utility Standard SAFE-1004S to address the notification and reporting process, rather than the Serious Safety Incident causal evaluation process. Additionally, PG&E retained an independent, third party to evaluate SIF Actual and SIF Potential investigations against an established rubric. This was done to ensure the quality and consistency of the investigation process. The rubric is used to assess the following:³¹

- The comprehensives of the corrective actions.
- Whether there was effective use of the hierarchy of controls: elimination, substitution, engineering controls/isolation, administrative controls, personal protective equipment (PPE), or the lack of appropriate controls (or only using informational controls).
- Whether the corrective actions are specific and measurable.
- Timelines to complete the corrective action were reasonable and clearly justified.

PG&E's Internal Audit Department added an audit of the Serious Incident Investigations' evaluation program to its 2018 Audit Plan. The audit evaluated processes and controls for cause evaluations and the management of corrective actions. The IA review requirement was codified in Utility Standard: GOV-6102S: "Internal Audit (IA) conducts periodic reviews of the investigation process in accordance with the approved annual IA schedule".³² NorthStar reviewed the most recent version of Utility Standard: GOV6102S, dated 3/10/2020, Rev:2 and found the IA requirement has been maintained.³³

IA completed an audit of processes and controls for employee safety incident investigation and management of corrective actions on July 24, 2019, and identified the following opportunities for PG&E to strengthen its oversight of the Causal Evaluation Program:

- Implement a monitoring control to ensure cause evaluators take all required courses described in the Standard (GOV-6102S).

³⁰ DR 1357.

³¹ DR 1359, Attachment 1.

³² DR 1357, Attachment, "Safety OII X-4 Narrative Package 03-20-2019_CONF".

³³ DR 1471, Attachment 2.

- Review CAP to confirm effectiveness reviews required for SIF Potentials are consistently documented as described in the Standard.
- Confirm that RCEs are approved at authorization levels described in the Standard.³⁴

G. RECOMMENDATION X-5

Recommendation

X-5: Improve documentation of corrective actions for incidents and near hits subject to a WGE, as well as for incidents subject to an ACE and RCE. At a minimum, documentation should include:

- The process/rationale by which the causal evaluation type was selected (i.e., RCE, ACE or WGE).
- A description of the corrective action, due date, completion date, responsible party and actions taken.
- If the incident warrants a 5-minute meeting, tailboard or other communication within a workgroup, LOB or to multiple LOBs, such communication should be included as well as the date and evidence that it was communicated.
- Where effectiveness evaluations are required, the results should be linked to the causal evaluation documentation.

Background

WGEs represent the preponderance of causal evaluation types. As part of its initial safety culture assessment, NorthStar selected a small sample of Near Hit Severity Level 1 items which generated a causal analysis, and assessed the adequacy of the documentation. NorthStar found that the corrective action documentation for minor injuries and near hits (which result in a WGE) was much less robust than for those which required either an RCE or an ACE.

PG&E Reported Status

PG&E reported this recommendation was complete and its Internal Audit Department's review of the completion narrative was complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E Utility Standard: GOV-6102S established the following causal evaluation requirements:³⁵

³⁴ DR 1358, Attachment, "Attachment 1_19-036 Audit of Employee Safety Cause Evaluation ProgramCONF".

³⁵ DR 1471, Attachment 2.

- All SIF Actuals require an RCE.
- All SIF Potentials require an ACE.
- For other issues to safety, quality, and performance: “Management must use a systematic approach to evaluate whether to perform an RCE or other CE method, considering the potential for the incident to have been more serious and the likelihood of recurrence.” The procedure does not provide specific guidance regarding the systematic approach to be employed.

Other procedures described in PG&E’s completion narrative have changed over time, and NorthStar was not able to perform an audit of all procedures or WGE entries.

H. RECOMMENDATION X-6

Recommendation

X-6: Report and track incidents in a consistent manner such that appropriate information may be shared across the enterprise. Develop a central repository for this information which should include an executive summary, corrective actions taken, any materials developed and the effectiveness evaluations.

Background

As part of its initial safety culture assessment, NorthStar found that although PG&E had performed causal evaluations for many years, the processes had not been integrated throughout the organization in a manner which would best facilitate and promote consistent safety efforts. NorthStar reviewed a sample of casual evaluations from Electric Operations (2010, 2011, 2012), Gas Operations (2013, 2014, 2015, 2016) and Power Generation (2012, 2013, 2014, 2015). The causal evaluations varied considerably in terms of their structure, format, and content. The varying report structures illustrated the extent to which safety efforts were not tied together in an integrated manner in order to make the processes more accessible, understandable, consistent, and accountable.

PG&E Reported Status

PG&E reported this recommendation was complete and its Internal Audit Department’s review of the completion narrative was complete in its December 28, 2018, Quarterly Report.³⁶

Results/NorthStar Assessment

Undetermined. SPD follow-up required.

Discussion

According to PG&E’s completion narrative:

³⁶ DR 1044, December 28, 2018, Quarterly Report.

All work-related safety incidents are reported to the Safety Incident Notification Line (Option 1) as specified by Step 2.b of the Safety Incident and Response Management standard (SAFE-1004S). The standard provides the process to ensure that all incidents are reported and communicated to the appropriate levels of the organization.

The Corporate Safety Investigations team has developed a standard reporting format for Initial and Final Reports associated with safety incidents. The report formats include a summary of the event, key findings and causes, corrective actions implemented or planned and identification of organizational learnings associated with the incident.³⁷

As discussed elsewhere in this Chapter, PG&E has adopted an enterprise-wide casual evaluation standard and eliminated LOB-specific standards. It has also developed procedures increasing the rigor around the investigation process. PG&E further developed a central repository for incident information on its Safety Incident Page on its intranet. NorthStar reviewed the webpage and found it contained the required information.³⁸

To verify improvements in incident tracking and reports, on March 24, 2021, NorthStar selected a sample of nineteen incidents and requested supporting documentation for each incident (e.g., SIF incident reports and tracking information, executive summaries, corrective actions, materials developed, effectiveness evaluations, and any other standardized materials.)³⁹ The response was received on July 22, 2021, providing insufficient review time for incorporation in this report.

I. RECOMMENDATION X-7

Recommendation

Develop a protocol involving concise, targeted, timely communications to notify other crews, work locations and LOBs of incidents or corrective actions that are applicable to that group.

Background

NorthStar conducted a review of PG&E's Causal Evaluation Standard (GOV-6102S) and its Serious Safety Incident Investigation Standard (SAFE-1004S) and found different communication standards for disseminating information.⁴⁰ In particular, NorthStar found differences in:

- Preliminary notification
- Final limited report notification
- Final report notification.

³⁷ December 28, 2018, Quarterly Report.

³⁸ IR 344.

³⁹ DR 1510.

⁴⁰ NorthStar Consulting Group, *Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture*, May 18, 2017.

Interviewees also indicated that:

- Incident notifications were frequently delayed leading to speculation regarding the cause of the incident.
- Causal evaluation and corrective action follow-up was not provided to applicable parties or was not provided in a timely manner.

PG&E Reported Status

PG&E reported this recommendation was complete and its Internal Audit Department's review of the completion narrative was complete in its December 28, 2018, Quarterly Report.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E has implemented this recommendation in Standard SAFE-1004S Attachment 10, SIF Response and Investigation Communications Protocol. The Protocol identifies:⁴¹

- The Communication (notifications, reports etc.)
- The method of communication (call, email etc.)
- The purpose and the details to be provided
- The accountable author
- The due date/time
- The audience.

GOV-6102S does not include all applicable communication protocols found in SAFE-1004S. NorthStar reviewed Appendix B of Utility Standard: GOV-6102S, Publication Date: 3/10/20, Rev: 2 and Utility Standard: SAFE-1004S, Publication Date: 09/12/2018, Rev: 5, Attachment 10 and found there to be minor differences in the accountable officers and target audience.⁴²

⁴¹ DR 1063, Attachment 10.

⁴² DRs 1063, Attachment 10 and 1471, Attachment 2.

CHAPTER XI: CONTRACTOR SAFETY

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to contractor safety. **Exhibit XI-1** provides a summary of NorthStar's recommendations, their origin (either NorthStar's May 8, 2017, Initial Safety Culture Assessment or the March 29, 2019, First Update Report) and how PG&E has handled each NorthStar recommendation in this area. For ease of reference, the section location where the recommendation is discussed is also included.

Exhibit XI-1
Contractor Safety Recommendations Summary

Rec. No.	Recommendation Text	Source	PG&E Treatment	Location within this Chapter
XI-1	Corporate Contractor Safety should select the projects for review rather than the LOBs, and conduct "surprise" field visits to assess contractor safety practices.	NorthStar's May 8, 2017 Report, Chapter XI	Included in F3.	A
XI-2	Determine whether it is feasible to update the language in contracts to remove all references to the contractor or consultant being "solely responsible" for performing work in a safe manner.	NorthStar's May 8, 2017 Report, Chapter XI	Individual implementation plan.	B
XI-3	Develop formal criteria to close contractor serious safety incident action items in ISN.	NorthStar's May 8, 2017 Report, Chapter XI	Individual implementation plan.	C
XI-4	Facilitate the sharing of best practices and lessons learned regarding the LOBs' implementation of the Contractor Safety Standard, addressing both organizational and procedural issues.	NorthStar's May 8, 2017 Report, Chapter XI	Individual implementation plan.	D
XI-5	Update LOB contractor safety procedures to clarify responsibilities and reflect current organizations and processes. Include guidelines regarding the frequency of field observations.	NorthStar's May 8, 2017 Report, Chapter XI	Individual implementation plan.	E
XI-6	Institute a contractor on-boarding test in Power Generation.	NorthStar's May 8, 2017 Report, Chapter XI	Individual implementation plan.	F

A. RECOMMENDATION XI-1

Recommendation

XI-1: Corporate Contractor Safety should select the projects for review rather than the LOBs, and conduct "surprise" field visits to assess contractor safety practices.

Background

In its May 8, 2017, Report, NorthStar found that PG&E's Corporate Contractor Safety organization had appropriate processes to facilitate and review the implementation of contractor safety. However, the quality of the assessment was diminished as the LOBs, rather than Corporate Contractor Safety, selected the projects to be reviewed, which impacted the independence of the project selection process. Furthermore, the project team received advance notice of the Contractor Safety Lead's site visit and assessment.

PG&E Reported Status

Complete. PG&E reported this as complete in its January 8, 2018, Prepared Testimony in the Safety Culture and Governance OII 15-08-019.

Results/NorthStar Assessment

Implemented. However, as part of its 2025 Safety Strategy initiative to refresh overall safety standards, PG&E was currently developing a new contractor safety standard.¹ NorthStar requested, but did not receive the revised safety standard.²

Discussion

Following the issuance of NorthStar's May 8, 2017, Report, PG&E revised its process to assess the LOB's contractor oversight. PG&E's current Contractor Safety Assessment Process entitled, *Contractor Safety Program Process – Assessment of the Lines of Businesses Contractor Oversight Procedures, Rev. 4, dated December 7, 2018*, outlines the methodology to be used by Corporate (Enterprise Contractor Safety). Eighteen LOBs have contractor oversight procedures.³ Enterprise Contractor Safety is responsible for assessing each LOB's implementation of its Contractor Safety Assessment Process to determine whether the LOBs have successfully implemented the oversight specified in Utility Standard: *SAFE-3001S Contractor Safety Standard*.⁴

The Contractor Safety Assessment Process Procedure requires that Enterprise Contractor Safety both selects projects to review and conducts unannounced field safety observations. An EH&S Contractor Safety analyst develops LOB compliance assessment targets for each Assessor based on contractor spend, schedule of work being performed and previous non-conformances by the contractor, and then assigns these targets to the EH&S Contractor Safety Assessors. As outlined in the procedure, the Contractor Safety Assessors will then:

- REVIEW the assessments needed by each Assessor per quarter
- VIEW and SELECT projects for the respective quarter for the LOB assignments. At least 80% of assessments selected must be classified as high-risk and the remainder can be medium-risk work

¹ Safety Technical Council, March 22, 2021.

² DR 1512.

³ DR 1196.

⁴ DR 1303.

- SCHEDULE assessments with the LOB representative to assess work being managed by the respective LOB at the PG&E project site. An LOB representative must be present at the time of the planned field visit unless the site-visit is unannounced for the field observation.⁵

The Contractor Safety Assessment Process procedure contains the following note stating that that Contractor Safety Assessor will also perform unannounced visits.⁶

NOTE

Contractor Safety Program Leads will also conduct unannounced field safety observations when practical to do so. The unannounced field safety observations may be performed during any assessment. Additionally, team members can choose the additional LOB projects to be assessed at their discretion. The frequency and continued assessment of LOB projects through unannounced observations will be (1) monitored and (2) as needed, annual targets may be set to maintain an appropriate level of verification.

Source: DR 1303.

In accordance with the above note, PG&E monitors the frequency and continued assessment of LOB projects through unannounced observations, and sets targets as needed, to maintain an appropriate level of verification. In the 2019-2020 period, 28 of the assessments (or approximately 6 percent of the 452 total) were unannounced. As of Q1 2021, the unannounced assessment target has been established to include, at a minimum, 10 percent of the total assessments planned for 2021.⁷

B. RECOMMENDATION XI-2

Recommendation

XI-2: Determine whether it is feasible to update the language in contracts to remove all references to the contractor or consultant being “solely responsible” for performing work in a safe manner.

Background

NorthStar’s 2017 Report found that although PG&E had amended its contracts to include enhanced contract terms regarding contractor safety, its contracts still stated that the “Consultant is solely responsible for performing the Work in a Safe Manner.”

⁵ DR 1303.

⁶ Ibid.

⁷ DR 1304.

PG&E Reported Status

Complete. PG&E reported this complete in its January 8, 2018, Prepared Testimony in the Safety Culture and Governance OII 15-08-019.

Results/NorthStar Assessment

Implemented.

Discussion

As described and documented in PG&E's Recommendation XI-2 Completion Report, as of August 2, 2017, PG&E removed the word "solely" from the general conditions template used for new contracts as shown below:

IMPORTANCE OF SAFETY: ...Consultant recognizes and agrees that safety is of paramount importance in the performance of the Work and that Consultant is ~~solely~~ responsible for performing the Work in a safe manner.⁸

In October 2017, PG&E sent emails regarding the updated contract general conditions to the PG&E Sourcing personnel responsible for executing new contracts and contract change orders.⁹

PG&E's Contractor Safety Program contract requirements are available on the "For Our Business Partners" section of PG&E's website. The contract requirements include the following discussion:

7.2 Also, to the extent the following language appears in a Contract, it is revised to remove the word "solely":

IMPORTANCE OF SAFETY: Contractor recognizes and agrees that safety is of paramount importance in the performance of the Work and that Contractor is responsible for performing the Work in a safe manner.¹⁰

C. RECOMMENDATION XI-3

Recommendation

XI-3: Develop formal criteria to close contractor serious safety incident (SSI) action items in ISNetworkworld (ISN).

Background

NorthStar's 2017 Safety Report noted that PG&E requires its contractors to report SSIs that involved a member of the general public to ISN, PG&E's safety prequalification third-

⁸ Recommendation XI-2 Completion Report, 1st Quarterly Safety Report.

⁹ Ibid.

¹⁰ See https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/purchasing-program/suppliers/contractor-safety-program-requirements-terms.pdf (as of February 11, 2021).

party administrator. A contractor-reported SSI triggers an ISN Action Item which requires the contractor to provide information regarding the incident for PG&E's review. Only PG&E can close a contractor-assigned SSI Action Item, but at the time of NorthStar's 2017 audit, PG&E had no formal criteria to do so.¹¹

PG&E Reported Status

Complete. PG&E reported this complete in its January 8, 2018, Prepared Testimony in the Safety Culture and Governance OII 15-08-019.

Results/NorthStar Assessment

Implemented.

Discussion

In 2017, PG&E Corporate Contractor Safety developed a process to close SSI Action Items through PG&E's safety prequalification third-party administrator, ISN. PG&E's Corporate Contractor Safety team manager approved the procedure outlining the SSI closure guidelines on October 18th, 2017.¹²

On March 14, 2018, PG&E issued an official procedure for this process, *SAFE-3001P-14 – Addressing ISN Serious Safety Incident Action Items Procedure*.¹³ The procedure outlines the process steps to address Action Items auto-generated by ISN in response to any annually self-reported SSI events that occurred throughout a contractor's company within the last five years that affected members of the public. Per the procedure, PG&E evaluates SSI data on a qualitative basis to determine whether the contractor should be disqualified from consideration for future work, or if additional safety mitigation measures should be required for current and/or future work. Depending on the severity of the incident, these decisions may be elevated for review by an ad hoc committee which may include members from PG&E's Supply Chain, the LOB that owns the contractor's work and a representative from Corporate Safety and/or other personnel.¹⁴

D. RECOMMENDATION XI-4

Recommendation

XI-4: Facilitate the sharing of best practices and lessons learned regarding the LOBs' implementation of the Contractor Safety Standard, addressing both organizational and procedural issues, including:

- Roles of safety specialists, inspectors and work supervisors with respect to Contractor Safety (See discussion of Recommendation XI-5)

¹¹ NorthStar Final Report, p. XI-19.

¹² Recommendation XI-3 Completion Report.

¹³ Recommendation XI-3 Completion Report.

¹⁴ DR 1305, *Addressing ISN Serious Safety Incident Action Items Procedure*.

- Benefits of a separate contractor safety group
- Contractor safety training for safety specialists and inspectors
- Frequency of field observations (See discussion of Recommendation XI-5)
- Field observation data and trend analyses.

Following the determination of best practices:

- Each LOB should update its Contractor Safety procedures to reflect its current organization, clarify responsibilities and reflect best practices. (See discussion of Recommendation XI-5.)
- Corporate Contractor Safety and LOB personnel with contractor safety experience should develop or revise contractor safety training for safety specialists and inspectors.
- Corporate Contractor Safety, or a LOB contractor safety representative, should work with appropriate PG&E personnel to update the Guardian observation tool to provide a useful mechanism to trend and track contractor safety performance.

Background

PG&E was just establishing its Contractor Safety program when NorthStar conducted its fieldwork in 2016. The Corporate Contractor Safety group was staffed in early 2016, and had just conducted a series of “road shows” to introduce the Contractor Safety Program to the LOBs. The LOBs’ Contractor Safety programs were in different stages of maturity: Power Generation (Hydro) had an established program, whereas Electric Operations and some areas of Gas Operations did not have fully-implemented programs. While each operational LOB had developed a contractor safety oversight procedure, there were several different organizational and procedural approaches.

PG&E Reported Status

Complete. PG&E reported this complete in its January 8, 2018, Prepared Testimony in the Safety Culture and Governance OII 15-08-019.

Results/NorthStar Assessment

Implemented. As of 2021, all LOB Contractor Safety Programs are fully developed.

Discussion

Enterprise Contractor Safety Team

The Enterprise Contractor Safety Team is part of EH&S, and provides governance for the Contractor Safety Program.¹⁵ Team responsibilities include oversight of all changes to the *SAFE-3001S Contractor Safety Standard*, including communication of the changes to the PG&E LOBs for inclusion in their respective contractor oversight procedures. All revisions made to LOB contractor oversight procedures must be reviewed and approved by the

¹⁵ DR 1334, Attachment 4, and Recommendation XI-4 Completion Report.

Contractor Safety Team for completeness prior to publication. The Enterprise Contractor Safety Team also performs LOB compliance assessments to ensure consistent implementation and maintenance of the Contractor Safety Program requirements across the enterprise (See Recommendation XI-1). These assessments are required for every LOB that manages contractors performing medium and high-risk work.¹⁶

Sharing of Contractor Best Practices

In 2017 and 2018, the Corporate Contractor Safety organization (currently referred to as the Enterprise Contractor Safety Team) held Contractor LOB Best Practices Forums. PG&E's Corporate Contractor Program Five-Year Plan, issued in September 2017, stated that the LOB Best Practices Forum would be a recurring annual event for all PG&E LOBs to discuss methods and strategies, as well as tools and techniques for program implementation. However, the 2019 meeting was canceled as a result of the public concern over the cost of PG&E offsite meetings. The 2020 meeting was cancelled due to concerns surrounding the COVID-19 pandemic.¹⁷

The 2017 and 2018 LOB Best Practices Forums' participants included the Contractor Safety Teams and the LOB safety leads who manage implementation of the Contractor Safety Program within their respective LOBs. Materials presented consider Contractor Safety management as a shared requirement and responsibility between the Corporate Contractor Safety and the LOB operations teams.¹⁸ NorthStar's review of the May 2018 LOB Best Practices Forum materials found the topics ranged from what to do when a contractor's safety performance changes such that it no longer meets PG&E criteria, to one LOB's solution to tracking the contractor's current point of contact.¹⁹

In 2020, Enterprise Contractor Safety established monthly Contractor Safety Program Shared Compliance Meetings, with the same participants as the 2017 and 2018 annual LOB Best Practices Forums – the Shared Compliance meeting is chaired by the Enterprise Contractor Safety Team Manager and participants are key stakeholders who are responsible for implementation of the LOB's contractor safety procedure.²⁰ These compliance meetings focus on the implementation of PG&E's contractor safety program and address issues ranging from using ISN to personnel changes in PG&E's Contractor Safety group.²¹

In 2020, PG&E also established a Contractor Safety Council (formally known as the Enterprise Business Partner Safety Steering Committee).²²

NorthStar's assessment is that it that the Contractor Safety Council is a good forum for PG&E EH&S, LOBs, and contractors to address contractor safety issues. For example, in the November 2020 meeting, participants shared ideas on how to improve contractor safety

¹⁶ Recommendation XI-4, Completion Report in PG&E's 2nd Quarterly Safety Report, April 26, 2019.

¹⁷ DR 1308 and 1309.

¹⁸ Recommendation XI-4, Completion Report in PG&E's 2nd Quarterly Safety Report, April 26, 2019.

¹⁹ DR 1467.

²⁰ DR 1464.

²¹ DR 1308, NorthStar review of presentation materials.

²² DR 1467.

performance. Contractors shared that being able to attract and retain crews and field leaders over the long term is an opportunity to improve safety performance. In the following meeting in February 2021, PG&E discussed actions taken to improve its contracting strategy in order to address the contractors' concerns.²³

Contractor Safety Training

PG&E implemented the Contractor Safety Program training through the PG&E Academy. Training classes implemented since NorthStar's 2017 Report include:

- SAFE-0102WBT – Corporate Contractor Safety Orientation for PG&E employees who directly oversee contractors performing high and medium risk work activities.
- SAFE-0101WBT – Contractor Safety Awareness training for PG&E contractors.²⁴

NorthStar confirmed that 3,663 PG&E employees were profiled for SAFE-0102WBT training in the 2018 through 2020 period. The preponderance of employee profiling occurred in 2020. Training activity is provided in **Exhibit XI-2**.

Exhibit XI-2 **PG&E Employee Training Status for Safe-0102WBT:** **Corporate Contractor Safety Orientation**

Training Status as of 2/2//2021	Year Profiled			Total	Percent of Total
	2018	2019	2020		
Complete	885	185	1,187	2,257	62%
Exempted	19	5	13	37	1%
No Activity	9	7	11	27	1%
Training in Progress			1	1	0%
Training not Due [Note 1]			1,341	1,341	37%
Total	913	197	2,553	3,663	100%

Note 1: Training is due 90 days after profiling date.

Source: DR 1310, NorthStar analysis.

SAFE-0101WBT is a mandatory training class for all high and medium risk contractors (Contractors are risk-ranked and given a high or medium risk designation by PG&E based on the type of work performed.) The entire contractor crew is required to take SAFE-0101WBT. Contractors access the training through ISN. As part of its assessment program, during field visits PG&E verifies that each crew member has received training. **Exhibit XI-3** shows the number of contractor companies which completed SAFE-0101WBT in 2019 and 2020.

²³ DR 1467, Enterprise BP Safety Steering Committee materials 02/11/2021.

²⁴ Recommendation XI-4, Completion Report in PG&E's 2nd Quarterly Safety Report, April 26, 2019.

Exhibit XI-3
Number of Contractor Companies that Completed Safe-0101WBT:
Contractor Safety Awareness

Year	Contractor Company Completions
2019	386
2020	307
Grand Total	693

Source: DR 1311, NorthStar analysis.

PG&E continues to offer both SAFE-0102WBT and SAFE-0101WBT in 2021.²⁵

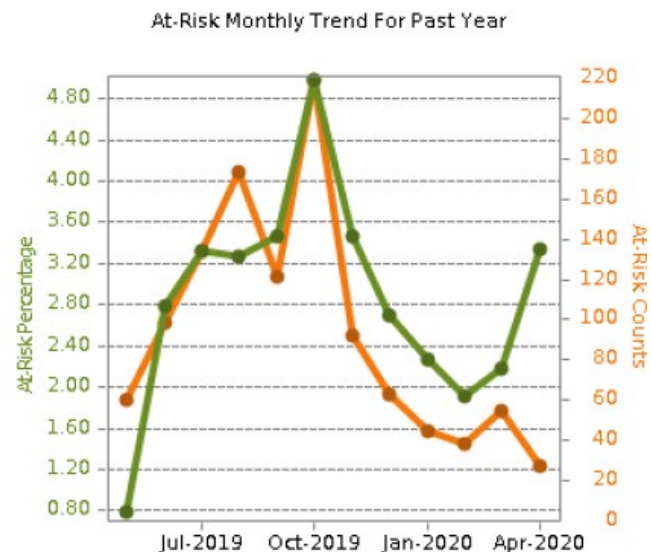
Field Observation Data and Trend Analyses

PG&E uses Prediction Solutions' SafetyNet for contractor field safety observations. This software includes a checklist of 20 questions. The severity of each negative observation is ranked as low, medium, high, or life threatening.²⁶

In the period January 1, 2019, through April 15, 2020, PG&E conducted 3,275 contractor field observations, with 60,435 findings. Of those 60,435 findings, 1,067 were negative findings that are classified as "At-Risk."²⁷ The trend of "At-Risk" observations is shown in Exhibit XI-4.

Exhibit XI-4
Contractor Field Review At-Risk Observations Trend

Contractor Field Review
At-Risk Count = 1067
At-Risk Percent = 1.8 %



²⁵ DR 1311.

²⁶ DR 1201.

²⁷ Ibid.

In November 2020, Enterprise Contractor Safety implemented a Contractor Safety Observations Pilot Program focusing specifically on 14 contractors. This program requires the contractors to provide monthly safety observation data and safety action plans to PG&E.²⁸

E. RECOMMENDATION XI-5

Recommendation

XI-5: PG&E should update their LOB contractor safety procedures to clarify responsibilities and reflect current organizations and processes. Include guidelines regarding the frequency and number of field observations.

Background

NorthStar's 2017 report found that the assignment of tasks in the Electric Operations and Gas Operations contractor safety procedures was confusing, did not always reflect the current organizational structure, and determined that there were some anomalies in the procedures. There were also no documented guidelines regarding the frequency of field observations.

PG&E Reported Status

Complete. PG&E reported this as complete in its April 26, 2019 Quarterly Report.

Results/NorthStar Assessment

Implemented. However, PG&E is currently developing a new contractor safety standard.

Discussion

The LOB contractor oversight procedures were updated in June 2018 to clarify organizational responsibilities and include field safety observation frequencies.²⁹ NorthStar reviewed the LOB procedures and confirmed that they specified organizational responsibilities and field safety observation frequencies.³⁰

Revisions to the Contractor Safety Standard are communicated to the PG&E LOBs for inclusion in their respective contractor oversight procedures. Revisions to the LOB Contractor Oversight procedures are reviewed by the Contractor Safety team for completeness prior to their publication.³¹

²⁸ DR 1511.

²⁹ Recommendation XI-5, Completion Report, 2ND Quarterly Safety Report, April 26, 2019.

³⁰ DR 1196.

³¹ Recommendation XI-5, Completion Report, 2ND Quarterly Safety Report, April 26, 2019.

F. RECOMMENDATION XI-6

Recommendation

XI-6: Institute a contractor on-boarding test in Power Generation.

Background

The 2017 NorthStar report found that in contrast to Electric Operations and Gas Operations, Power Generation did not test contractors on their knowledge of safety orientation materials as part of the on-boarding process.

PG&E Reported Status

Complete. PG&E reported this complete in its January 8, 2018, Prepared Testimony in the Safety Culture and Governance OII 15-08-019.

Results/NorthStar Assessment

Implemented.

Discussion

PG&E has instituted contractor on-boarding tests in Hydro Generation and Fossil Generation.

The Power Generation Contractor Safety Procedure for Hydro Facilities (PG-2015P-1, 6/12/2019, Rev. 6) states that prerequisites for working on PG&E hydro generation facilities include viewing PG&E's contractor safety video and completing the associated knowledge check.³² Contractors are given a Certificate of Completion and Wallet Card upon completion of the knowledge check.³³

The Independent Safety Oversight Committee (ISOC) review of Fossil Generation on October 12-14, 2020, confirmed the existence of an on-boarding test in Fossil Generation. The review stated the following:

During the tour of the Gateway facility, an ISOC member attended the one hour-long safety orientation training which is required for every employee and contractor coming on site.

This was an excellent instructor-led safety briefing. There was a video introduction, followed by a detailed discussion of each of the safety rules and considerations, *and a written examination*. For each of the rules, the instructor identified one or more reasons for the rule, making this training very effective. Another contractor who attended the same orientation gave similar feedback.³⁴ [Emphasis added]

³² DR 1306.

³³ Recommendation XI-6, Completion Narrative in Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 01-2018, in compliance with Decision 18-11-050, submitted December 28, 2018.

³⁴ Independent Safety Oversight Committee: Fossil Generation, ISOC Visit Report October 12-14, 2020, p. 18.

CHAPTER XII: IMPLEMENTATION PMO

This chapter provides an update on PG&E's implementation of NorthStar's recommendations related to PG&E's Project Management Office (PMO) provided in NorthStar's March 29, 2019, First Update Report. **Exhibit XII-1** provides a summary of NorthStar's recommendations related to the PMO. Other recommendations in the First Update Report are included in the chapters related to the original Safety Culture Assessment topic areas in order to show the evolution of the recommendations.

Exhibit XII-1
Summary of PMO-Related First Update Report Recommendations

Rec. No.	Recommendation Text	Source	PG&E Treatment	Section Location within this Chapter
F-1	Development of an implementation plan for NorthStar's recommendations, to be submitted to the CPUC. PG&E should also provide periodic updates on its implementation status. This information shall be used by SED to ensure timely and effective implementation of NorthStar's recommendations.	NorthStar's May 8, 2017, Report, Executive Summary	Individual implementation plan.	A
U-1	Institute version control over, and include dates for the implementation plans, completion narratives, sustainability plans and for the IA sign-off process.	NorthStar's March 29, 2019, Update Report.	Implemented under existing plan.	B
U-2	Increase the rigor and formality over target completion date changes, status changes and scope changes associated with the implementation of NorthStar's recommendations. Review the implementation status of all recommendations to ensure all elements of the recommendations have been addressed or PG&E's modifications have been documented and justified.	NorthStar's March 29, 2019, Update Report.	Implemented under existing plan.	B
U-3	Develop processes to ensure the sustainability of the implementation of NorthStar's recommendations.	NorthStar's March 29, 2019, Update Report.	Implemented under existing plan.	C
U-4	In addition to the status of the implementation of NorthStar's recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.	NorthStar's March 29, 2019, Update Report.	Implemented under existing plan.	D
U-5	Report to the Commission on a quarterly basis the status of the One PG&E Operational Health & Safety (OH&S) Plan and associated metrics (in process).	NorthStar's March 29, 2019, Update Report.	Implemented under existing plan.	E

A. RECOMMENDATION F-1

Recommendation

F-1: Development of an implementation plan for NorthStar's recommendations, to be submitted to the CPUC. PG&E should also provide periodic updates on its implementation

status. This information shall be used by SED to ensure timely and effective implementation of NorthStar's recommendations.

Background

To ensure the implementation of the recommendations outlined in NorthStar's May 8, 2017, Safety Culture Assessment Report, NorthStar recommended that PG&E develop a formal implementation plan and periodic updates to be provided to the Commission to facilitate monitoring.¹

PG&E Reported Status

Complete. In its January 8, 2018, Prepared Testimony in OII 15-08-019, PG&E reported that it had developed implementation plans for all of NorthStar's recommendations by June 2017 and had set up a Project Management Office (PMO) and associated processes to track the progress of each plan, support issue identification and resolution, assist with completion documentation, and provide status reporting, by the fall of 2017. The PMO was to remain in place as long as necessary to ensure completion of all implementation plans.

Results/NorthStar Assessment

Implemented.

Discussion

NorthStar reviewed PG&E's implementation of this recommendation as part of its Update Assessment and provided Update Recommendations U-1 through U-5 to improve PG&E's processes and controls.

B. RECOMMENDATIONS U-1 AND U-2

Recommendations

U-1: Institute version control over, and include dates for the implementation plans, completion narratives, sustainability plans and for the Internal Audit (IA) sign-off process.

U-2: Increase the rigor and formality over target completion date changes, status changes and scope changes associated with the implementation of NorthStar's recommendations. Review the implementation status of all recommendations to ensure all elements of the recommendations have been addressed or PG&E's modifications have been documented and justified.

Background

In its First Update Report, NorthStar reviewed PG&E's implementation of Recommendation F-1: Develop a plan and status updates to ensure NorthStar's recommendations were implemented. In this review, NorthStar assessed the recommendation implementation plans

¹ See Executive Summary.

themselves as well as the activities and responsibilities of the PMO. (The PMO is described in Chapter II: Background). As documented in the First Update Report, NorthStar found that the implementation process would benefit from more rigor and formal documentation.

- There was no formal PMO Charter or process documentation.
- The implementation plans varied in terms of specificity and level of detail. The majority of the implementation plans were not based on task interdependencies and detailed milestone schedules. As a result, progress reporting was subjective.
- PG&E did not maintain version control over the information submitted to IA for its review. Once the implementation was considered complete, the completion narrative and sustainability plan were developed and electronically submitted to IA. According to PG&E, early in the process, copies of the completion documentation were provided to IA with notice that the plan was ready for review. After the first few plan completions, PG&E shifted to providing a link to the online version of the document to IA. Plan Owners generally edited the online version in response to IA feedback. In most cases, the original document provided to IA was not available. As a result, neither NorthStar nor PG&E could readily determine the changes made based on IA's review.
- Implementation was considered "complete" once the Sponsor/Owner determined the key milestones had been "implemented", but before the completion narrative was developed, finalized, and reviewed by IA.
- PG&E's classification of the implementation status as red, amber, or green was subjective, rather than based on the achievement of defined milestones.²
- Changes to the status or target completion dates were not well-documented or justified.

NorthStar also found that there was no ongoing oversight or monitoring to ensure implementation sustainability.

PG&E Reported Status

Complete. PG&E classified Recommendations U-1 and U-2 as "implemented under existing plan", and did not specifically report their status.

Results/NorthStar Assessment

Partially Implemented. While some improvements were made to implementation-tracking (version control and status/completion date changes) overall, PG&E's controls over the implementation of NorthStar update recommendations continue to be inadequate.

² Red indicated a stage was in progress, issues had been identified, and the resolution plan had not yet been identified; amber indicated a stage was in progress, issues had been identified, and a resolution plan had been identified; green indicated a stage was in progress, no issues had been identified.

Discussion

The First Update Report recommendations were not subject to the same implementation process rigor as NorthStar's initial recommendations. PG&E classified the majority of the recommendations as "Implemented Under Existing Plan" (15 of 22, or 69 percent). PG&E did not develop completion narratives for these recommendations and therefore there was no IA review. In this regard, PG&E stated:

The recommendations that were identified as "Implemented Under Existing Plan" were reviewed by the Plan Owner and Plan Sponsor and they made the determination that Implementation Plan that was created for the 2017 NorthStar Recommendations covered these new 2019 NorthStar Recommendations. Therefore, no additional Implementation Plan nor Closure Narrative was required for these items. Internal Audit was not involved in this decision-making process and since no incremental documentation was generated, they also did not perform a review.³

C. RECOMMENDATION U-3

Recommendation

U-3: Develop processes to ensure the sustainability of the implementation of NorthStar's recommendations.

Background

At the time of NorthStar's March 29, 2019, First Update Report, PG&E had not implemented all NorthStar recommendations nor developed a process to ensure the sustainability of the recommendations.

PG&E Reported Status

Complete. PG&E classified recommendation U-3 as implemented under existing plan, and did not specifically report its status.

Results/NorthStar Assessment

Implemented, but improvements were possible.

Discussion

In early 2019, an assessment team from PG&E's Diablo Canyon Power Plant (DCPP) conducted a sustainability review of NorthStar's Safety Culture OII recommendations. PG&E summarized this work as follows:⁴

The assessment team reviewed each of the 65 recommendations developed in "Assessment Of Pacific Gas And Electric Corporation And Pacific Gas And Electric Company's Safety Culture Prepared For California Public Utilities Commission" (May 8, 2017) by NorthStar. Pacific Gas and Electric (PG&E) combined some of the 65 recommendations and developed 49

³ DR 1389.

⁴ DR 1294, Attachment 3a.

implementation plans. This team reviewed each of the initial NorthStar recommendations and associated plans to evaluate implementation and sustainability of the actions.

The initial recommendation and intent were evaluated, and implementation completion verified. In evaluating sustainability, many factors were considered; review of sustainability was based on process and guidance documents (procedures, policies, charters, etc.), training content and profiles, performance indicators, continuity of actions, general oversight of the changes, and organizational structure and personnel. The team communicated with the recommendation owners to assess progress and sustainability. The team's evaluation of each recommendation was either Sustainable, Sustainable with Comments, or not Sustainable. Implementation of several recommendations was still in progress at the time of this review. For these recommendations the actions to date and future actions were reviewed. The team classified each of these as: On-Track, On-Track with Comments, or Not On-Track.

The team concluded that forty-nine recommendations were fully implemented and sustainable. Minor vulnerabilities were noted in the aggregate insights and included in the field notes. The team found seven recommendations sustainable with comments that additional actions may be needed or minor vulnerabilities exist. None of the recommendations were determined to be not sustainable by PG&E. Nine of the recommendations were still in progress during the DCPD audit, and the team reviewed their current status and future actions. Five were found to be on track. Four of these in-progress recommendations were on-track with comments that some vulnerabilities exist in the implementation of the action plans. None of the recommendations were determined to be Off-Track.⁵ The results of the review are summarized in **Exhibit XII-2**.

Exhibit XII-2 **Summary of the DCPD Team's Sustainability Review Results**

Assessment	Number of Recommendations	
Fully implemented and sustainable	49	
Fully implemented and sustainable with comments re: minor vulnerabilities and future actions	7	
Still in Progress	9	
On track		5
On track with some vulnerabilities		4
Total	65	

Source: DR 1293, Attachment 3a.

In its review of the recommendations, the team developed several 'aggregate insights'. The team did not feel that the issues were currently affecting the sustainability of individual recommendations, but thought that in aggregate they may present future vulnerability. The following provides the team's aggregate insights:

Aggregate Insight - Regulatory implementation rigor: In some cases, guidance documents, meetings, or processes have been developed or changed without reference to the regulatory commitment. This could result in the process being changed in the future without consideration to the OII recommendations.

Aggregate Insight - Recommendation reliant primarily on people: Several recommendations rely on personnel currently in certain roles. This presents a vulnerability as the organization

⁵ DR 1294, Attachment 3a.

changes or distractions occur. Progress on some recommendations has slowed or stalled concurrent with the October 2018 wildfires and the subsequent Chapter 11 filing. Others resulted from personnel changes.⁶

As previously discussed in Chapter II. Background, in late 2019, PG&E began to use a compliance tool called MetricStream for its quarterly Safety OII certification process. According to PG&E, MetricStream provides a simple and straightforward certification process that takes just a couple of minutes to complete.⁷ Each quarter approvers are asked the following simple questions:

1. Is the execution of the Safety OII recommendation/s and corresponding plan still ongoing?
2. Are there any changes to the Safety OII recommendation/s and corresponding plan execution (e.g., organizational, business priority, process, or people changes that impact execution)?
3. I certify that adherence to the Safety OII requirement/s is ongoing and evidence of compliance is maintained.⁸

PG&E certified the sustainability of the vast majority of its implementation plans; however, contrary to these certifications, NorthStar has identified a number of recommendations that were not fully implemented or for which the implementation was not sustained. Thus, NorthStar calls into question the objectivity and robustness of PG&E's review and certification processes.

D. RECOMMENDATION U-4

Recommendation

U-4: In addition to the status of the implementation of NorthStar's recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.

PG&E Reported Status

Complete. PG&E classified recommendation U-4 as "implemented under existing plan", and did not specifically report its status.

Results/NorthStar Assessment

Implemented, but improvements are required. PG&E communicates changes to its safety operations and the status of outstanding recommendation implementation in its Quarterly Reports to the Commission. There are opportunities to improve the content of future Quarterly Reports to more clearly show significant changes that might affect the sustainability of the recommendations.

⁶ DR 1294, Attachment 3a.

⁷ DR 1087, Attachments 4 through 7.

⁸ DR 1293, Attachment "Safety OII MetricStream Questions".

Discussion

PG&E is currently working with SPD on changes to the content of future Quarterly Reports to more clearly identify implementation plan changes. NorthStar reviewed PG&E's 1st through 10th Quarterly Reports and noted that the Commission was apprised of significant changes to PG&E's safety operations and the status of outstanding recommendation implementation; however, this was largely in narrative form. An easy way to visualize and understand tabular form of the status of outstanding recommendations might prove to be useful.

E. RECOMMENDATION U-5

Recommendation

U-5: Report to the Commission on a quarterly basis the status of the One PG&E Occupational Health & Safety (OH&S) Plan and associated metrics.

Background

As described in Chapter II: Background, PG&E initially presented its *One PG&E OH&S Plan* to the Commission in its January 8, 2018, Testimony in the Safety Culture OII 15-08-019.⁹ The plan included key measures of success (metrics) for the plan focus areas. In a November 2018 Decision (D.18-11-050), the Commission directed PG&E to implement the recommendations of the Commission's Safety and Enforcement Division (SED), as set forth in a report prepared by NorthStar, no later than July 1, 2019, and to serve quarterly reports on the status of its implementation to the service list for the proceeding, beginning the fourth quarter of 2018.¹⁰ PG&E collaborated with SED and NorthStar on the form and content of PG&E's First Quarterly Report.

PG&E's First Quarterly Report provided a status update on PG&E's progress on its implementation of NorthStar's recommendations as of November 30, 2018, and an update on the *One PG&E OH&S Plan*. To facilitate the comparison of results presented in future Quarterly Reports, SED recommended that PG&E's First Quarterly Report include data through November 30, 2018, and that PG&E's Quarterly Reports thereafter should be based on quarterly data submitted on a one-month lag.¹¹

As part of its March 29, 2019, Update Report, NorthStar formalized this requirement, recommending that PG&E provide quarterly status updates on its *One PG&E OH&S Plan* to the Commission.

PG&E Reported Status

Complete. PG&E classified recommendation U-4 as "implemented under existing plan", and did not specifically report its status.

⁹ Appendix 3A.

¹⁰ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

¹¹ December 28, 2018, Quarterly Report, Safety Culture and Governance OII.

NorthStar Assessment

Implemented. The reporting changed when PG&E developed a new safety strategy in early and late 2020 – the *2025 Safety Strategy*.

Discussion

In its First Quarterly Report, PG&E provided a *One PG&E OH&S Plan* update that included accomplishments for the reporting quarter, and metrics related to employee safety, contractor safety, and motor vehicle incidents.¹² PG&E also provided completion narratives for NorthStar recommendations that were implemented that quarter. The format changed slightly with the 6th Quarterly Report, with the development of the 2020 Safety Plan. This reporting continued through its 8th Quarterly Report covering the period ending September 30, 2020.¹³

In its 9th Quarterly Report to the Commission, PG&E indicated that beginning with that report, it would transition its safety updates to align with the major components of the new 2025 Workforce Safety Strategy.¹⁴ PG&E now reports quarterly progress in conformance with the new categories of the *2025 Safety Strategy* and continues to provide safety metrics.

PG&E and the SPD of the Commission are currently working on a revised Quarterly Report format.

END ATTACHMENT A

¹² December 28, 2018, Quarterly Report, Safety Culture and Governance OIL.

¹³ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 08-2020, in compliance with Decision 18-11-050, submitted October 28, 2020.

¹⁴ Pacific Gas and Electric Company Safety Culture and Governance Quarterly Report No. 09-2020, in compliance with Decision 18-11-050, submitted January 29, 2021.

Safety Policy Division Staff Report for Investigation (I.) 15-08-019

ORDER INSTITUTING INVESTIGATION ON THE
COMMISSION'S OWN MOTION TO DETERMINE
WHETHER PACIFIC GAS AND ELECTRIC
COMPANY AND PG&E CORPORATION'S
ORGANIZATIONAL CULTURE AND GOVERNANCE
PRIORITIZE SAFETY

September 2022



**California Public
Utilities Commission**

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List of Acronyms

AB	Assembly Bill
ACE	Apparent Cause Evaluation
BPR	Business Performance Review
CE	Causal Evaluation
CPUC or Commission	California Public Utilities Commission
CRO	Chief Risk Officer
CSO	Chief Safety Officer
CSRO	Chief Safety and Risk Officer
D.	Decision of the Commission
DART	Days Away, Resitricted, or Transferred
EH&S	Environmental Health and Safety
Energy Safety	Office of Energy Infrastructure Safety
EOE	Enhanced Oversight and Enforcement
FSS	Field Safety Specialist
GRC	General Rate Case
HR	Human Resources
HSMS	Health and Safety Management System
I. or OII	Order Instituting Investigation
ISM	Independent Safety Monitor
LOB	Line of Business
LTIP	Long-Term Incentive Plan
LWD	Lost Work Day
NorthStar	NorthStar Consulting Group, Inc.
NOS	Nuclear Operations and Safety
NTSB	National Transportation Safety Board
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
PMVI	Preventable Motor Vehicle Accidents
PU Code	Public Utilities Code
R. or OIR	Order Instituting Rulemaking
RAMP	Risk Assessment Mitigation Phase
RCA	Root Cause Analysis
RCE	Root Cause Evaluation
RIBA	Risk Informed Budget Allocation
RSAR	Risk Spending Accountability Report
Safety and Operational Metrics	SOMs
SCA	Safety Culture Assessment Safety
SED	Safety Enforcement Division
SIF	Serious Injury or Fatality
SIF-P	Potential Serious Injury or Fatality

SLD	Safety Leadership Development
S-MAP	Safety Model Assessment Proceeding
SNO	Safety and Nuclear Operations
SPD	Safety Policy Division
SPM	Safety Performance Metric
STIP	Short-Term Incentive Plan
T&D	Transmission and Distribution
WGE	Work Group Evaluation
WMP	Wildfire Mitigation Plans

A. OVERVIEW

This Staff Report was developed by the California Public Utilities Commission (CPUC) Safety Policy Division (SPD). It provides a plan for tracking designated recommendations from NorthStar Consulting Group, Inc.'s (NorthStar's) 2017 Assessment of Pacific Gas and Electric Company's (PG&E's) Safety Culture and 2019 First Update Report.

SPD plans to focus monitoring on recommendations that meet one or more of the following criteria:

- Could have a tangible impact on safety outcomes, as advised by NorthStar or as determined by SPD review.
- Were marked as incomplete or not implemented within NorthStar's 2021 Final Update Report.
- Are not being monitored or tracked through other CPUC oversight efforts.

SPD's monitoring will consider how recommendations relate to recent reviews of PG&E's safety programs or safety culture completed by the Federal Monitor,¹ Office of Energy Infrastructure Safety (Energy Safety), or others.²

SPD does *not* plan to track recommendations that:

- Would likely have an unclear, indirect, or indeterminate impact on safety outcomes.
- Were marked as implemented within NorthStar's 2021 Final Update Report.
- Are being monitored or tracked through related CPUC efforts, such as the Independent Safety Monitor or Safety Model Assessment Proceeding (S-MAP), or through Energy Safety's assessment of PG&E's Wildfire Mitigation Plans.
- Are no longer applicable given the time that has elapsed since NorthStar made the recommendation in 2017 or 2019.

B. BACKGROUND

Proceeding History

In August 2015, the Commission opened an investigation (I.15-08-019) to determine whether PG&E has corporate governance, clearly documented organizational goals and objectives, and work procedures that prioritize and improve safety.³ The proceeding was initiated after the National Transportation Safety Board (NTSB) adopted an Accident Report for the San Bruno

¹ Refers to the Federal Monitor that was appointed as part of PG&E's probation in criminal court for felony convictions related to the fatal 2010 San Bruno gas pipeline explosion.

² Refers to the 2021 PG&E Safety Culture Assessment issued by Energy Safety (<https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>) and subsequent annual safety culture assessments issued by Energy Safety.

³ Documents related to I.15-08-019 are available within the proceeding docket: https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:I1508019.

explosion and fire that killed eight and injured 58 people, citing PG&E's prolonged "organizational failure" as a root cause of the explosion.⁴

NorthStar was selected to perform the assessment, which began in April 2016, on behalf of the Commission's Safety and Enforcement Division (SED). Since the proceeding was initiated over five years ago, NorthStar has issued three reports on PG&E's safety culture:

- In May 2017, NorthStar issued its Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture, which investigated whether PG&E's organizational culture and governance prioritize safety and adequately direct resources to promote accountability and achieve safety goals and standards. The report included 65 recommendations for PG&E across the following categories: strategy and governance organization, field operations, budgeting and spending, compensation and performance management, recruiting and training, communications, safety reporting/corrective action, and contractor safety.⁵
- In March 2019, NorthStar submitted its First Update Report to the 2017 safety culture assessment. As directed by SED, NorthStar assessed the status of six recommendations and issued PG&E an additional 22 recommendations. According to NorthStar, two of the six recommendations were complete; one was on target; and three were partially implemented as of early 2019.⁶
- In July 2022, NorthStar's 2021 Final Update Report was issued to the service list, along with this Staff Report. NorthStar's 2021 report provides a final assessment of the implementation status of all NorthStar recommendations.

In D.20-11-016, the Commission noted that PG&E's bankruptcy-related proceedings pending before the Commission resulted in a delay in this proceeding, as several of the issues overlapped.⁷ The timeline in Figure 1 (below) provides an overview of I.15-08-019 and related events including PG&E's bankruptcy that have impacted the course and timing of the proceeding.

⁴ NTSB's September 2010 Pipeline Accident Report on the Natural Gas Transmission Pipeline Rupture and Fire San Bruno, California is available at:

<https://www.nts.gov/investigations/AccidentReports/Reports/PAR1101.pdf>

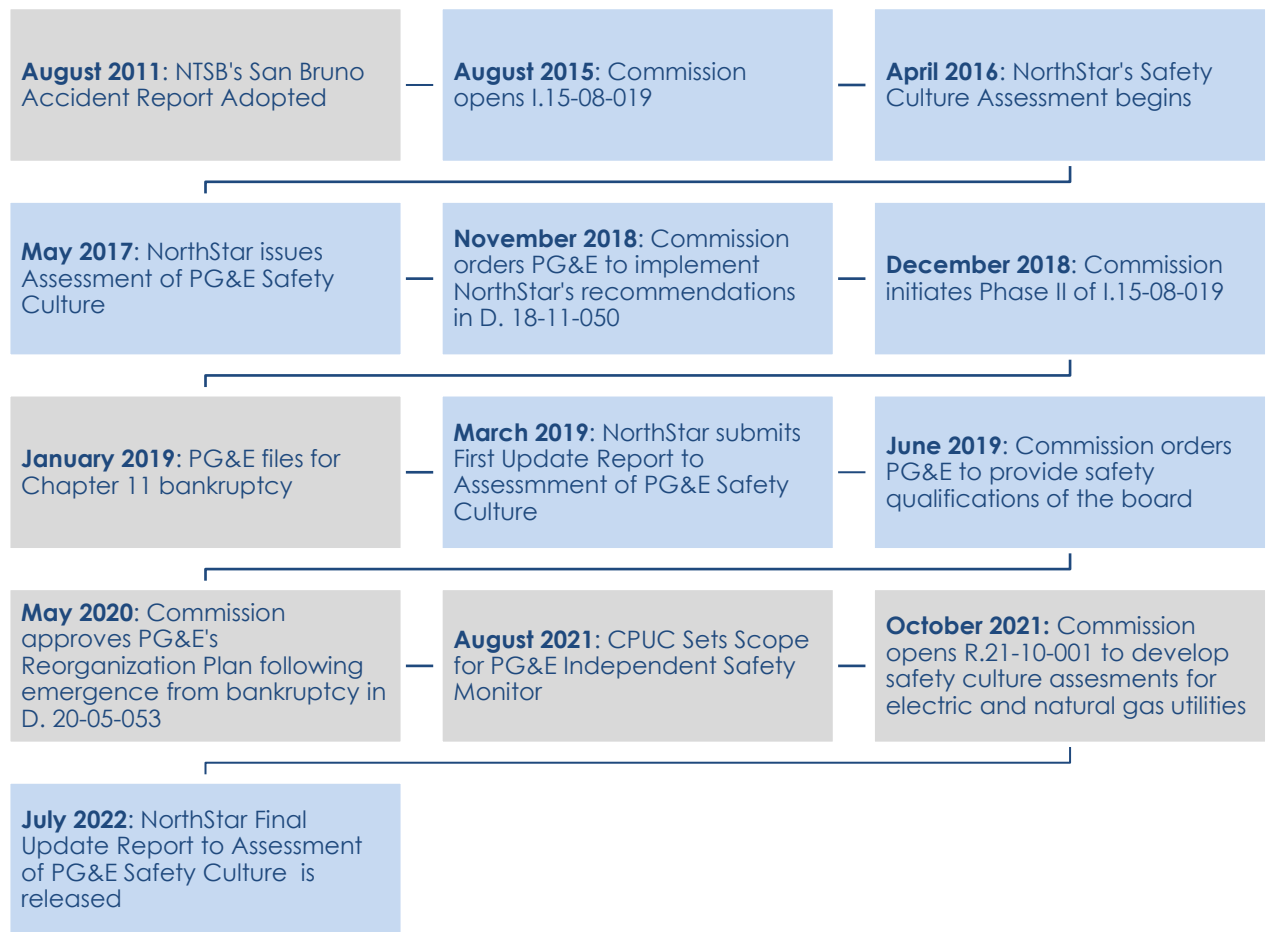
⁵ NorthStar's 2017 report is available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/pge/safety-culture/pge-final-safety-report-5-8-17-northstar-consulting.pdf>.

⁶ NorthStar's 2019 report is available at:

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M277/K012/277012719.PDF>.

⁷ D.20-11-016, Order Extending Statutory Deadline, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M350/K483/350483729.PDF>.

Figure 1. Abbreviated timeline of I.15-08-019 (shown in blue) and related events (shown in grey)

Additional Safety Oversight of PG&E

In determining the plan for future monitoring of NorthStar's recommendations, we considered the extensive initiatives established in recent years by the California Legislature, the Commission, and the federal government to mitigate safety risks posed by PG&E's electric and natural gas infrastructure that had not been implemented when the Commission began its Safety Culture Investigation of PG&E in 2015. While some of these initiatives may supersede recommendations from NorthStar's 2017 and 2019 reports, other initiatives have led to conclusions that confirm NorthStar's previous findings and underscore the need for continued monitoring of certain recommendations.

For example, as a result of PG&E's criminal conviction in the deadly 2010 San Bruno pipeline explosion, the federal court ordered PG&E to report to a federal probation officer that would evaluate, assess, and monitor company activities for five years, commencing in January 2017. This Federal Monitor, whose term ended in January 2022, found that the six most salient challenges PG&E faces include retaining a core leadership team; continuing to improve records management; continuing to improve contractor management; adhering to commitments to invest in long-term safety projects including undergrounding for electrical distribution lines and infrastructure replacement; improving planning and execution of wildfire mitigation efforts; and

ensuring that the employment of resources for wildfire safety does not result in cannabilization of gas safety teams.⁸ NorthStar's assessments highlighted similar issues related to leadership retention, safety record-keeping, and contractor management.⁹

Pursuant to Assembly Bill (AB) 1054 (Holden, 2019), Energy Safety conducts annual Safety Culture Assessments for each electrical corporation with a focus on wildfire and personal safety. In 2021, Energy Safety contracted with DEKRA Services, Inc., (DEKRA) to conduct the inaugural annual Safety Culture Assessment (SCA) for each electrical corporation. DEKRA found that PG&E's 2025 Workforce Safety Strategy is hindered by a disjointed approach and that PG&E's siloed nature and large size create a barrier for advancement of its safety culture,¹⁰ similar to feedback provided by NorthStar in 2019.¹¹ DEKRA's SCA issued by Energy Safety included the following recommendations to PG&E:

1. Build leadership skills and ensure frontline supervisors are demonstrating those skills regularly in the field to improve the work environment for wildfire and personal safety.
2. Establish a governance structure to ensure effective implementation and tracking of the 2025 Workforce Safety Strategy.
3. Execute the strategy with active leadership by senior executives to ensure implementation.
4. Leverage the new safety management system to improve the flow of information up, down, and across the organization and provide a single mechanism for reporting and tracking wildfire concerns.
5. Increase engagement on the safety culture assessment within the workforce supporting wildfire mitigation initiatives.
6. Recognize and take action to mitigate the safety concerns posed by interactions with certain discontented members of the public.¹²

Looking forward, in August 2021, the CPUC set the selection process, scope of work, and schedule for an Independent Safety Monitor (ISM) that will augment CPUC oversight of PG&E,¹³ as required by the Commission's Decision (D.)20-05-053 approving PG&E's Bankruptcy Plan of Reorganization.¹⁴ The ISM, which was selected and began its five-year term in January 2022, will focus on the following scope of work:

- Monitoring and alerting Commission staff whether PG&E is implementing its highest priority and risk-driven safety mitigations

⁸ PG&E Independent Monitor Report of November 19, 2021, pg. 3, Kirkland & Ellis LLP

⁹ See, for example, pgs. I-8 and IV-15 on leadership turnover; recommendations VI-2 and X-1 through X-9 related to safety record keeping; and recommendations XI-1 through XI-6 related to contractor safety from NorthStar's 2019 Report.

¹⁰ DEKRA Services, Inc., 2021 Safety Culture Assessment Report for Pacific Gas and Electric Company (PG&E), issued by Energy Safety, available at: <https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>.

¹¹ NorthStar's First Update Report, pg. III-23, March 2019.

¹² DEKRA's 2021 Safety Culture Assessment Report for PG&E issued by Energy Safety.

¹³ Commission Resolution M-4855 Approving and denying elements of Pacific Gas and Electric Company's (PG&E) Advice Letter 4401-G/6116-E Requests to Comply with Decision 20-05-053 to Implement an Independent Safety Monitor (ISM) from August 5, 2021:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M398/K031/398031023.PDF>.

¹⁴ D.20-05-053, Decision Approving Reorganization Plan, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M338/K816/338816365.PDF>.

- Monitoring PG&E's safety-related recordkeeping and record management systems.¹⁵

Additionally, pursuant to Senate Bill (SB) 901 (Dodd, 2018), SPD will develop a process for each regulated electric and gas utility to conduct a comprehensive safety culture assessment at least once every five years through Rulemaking (R.)21-10-001, initiated in October 2021.¹⁶ The regular industry-wide safety culture assessment process developed through R.21-10-001, once in place, may impact the monitoring described within this document. The scope of the proceeding includes a question on how utilities that completed a safety culture assessments in recent years (such as PG&E) should be required to comply with the process developed within R.21-10-001.¹⁷

In addition to these efforts, related safety initiatives that we considered include but are not limited to the following:

- *Enhanced Oversight and Enforcement:* If PG&E makes insufficient progress related to specific triggering events described within D.20-05-053, PG&E triggers the Enhanced Oversight and Enforcement Process (EOE Process). On April 15, 2021, PG&E was placed in Step 1 of the EOE Process for insufficiently prioritizing its Enhanced Vegetation Management based on risk and was required to submit a Corrective Action Plan within 20 days (Resolution M-4852).¹⁸
- *Risk-Based Decision-Making Framework:* Through R.20-07-013, the Commission is building on requirements for the utility risk assessment and mitigation framework adopted in the first Safety Model Assessment Proceeding (S-MAP), A.15-05-002 et al., and in R.13-11-006, the Risk-Based Decision-Making proceeding.¹⁹ This includes refining safety performance metrics adopted in the first phase of the S-MAP proceeding (D.19-04-020)²⁰ and developing new safety and operational metrics as needed to link to the Enhanced Oversight and Enforcement Process (above). R.20-07-013 will also refine Risk Assessment Mitigation Phase (RAMP) requirements, through which utilities describe their plans to identify, assess, and mitigate risks prior to submitting their General Rate Case (GRC) applications. D.19-04-020 also required utilities to submit Risk Spending Accountability Reports (RSAR), comparing authorized spending to actual spending.
- *Executive Compensation:* PG&E is required to report annual executive compensation awards to the Commission through the Tier 1 Advice Letter filing process, and to address how such awards comply with certain requirements of the bankruptcy decision, D.20-05-053. Additionally, to receive a Safety Certification from Energy Safety, all electrical corporations must obtain approval on their Executive Compensation Structure from Energy Safety to ensure compensation structures incentivize safety, pursuant to Public Utilities Code (PU Code) § 8389(e)(4).

¹⁵ See Commission Resolution M-4855.

¹⁶ Documents related to R.21-10-001 are available within the proceeding docket:

https://apps.cpuc.ca.gov/apex/?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2110001.

¹⁷ See question seven in the Scoping Memo for R.21-10-001:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M471/K485/471485952.PDF>.

¹⁸ For more information, see: <https://www.cpuc.ca.gov/industries-and-topics/pge/pge-oversight-and-enforcement>.

¹⁹ Documents related to R.13-11-006 are available within the proceeding docket:

https://apps.cpuc.ca.gov/apex/?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R1311006.

²⁰ D.19-04-020, Phase II Decision Adopting Risk Spending Accountability Report Requirements and Safety Performance Metrics for Investor-Owned Utilities and Adopting a Safety Model Approach for Small and Multi-Jurisdictional Utilities, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M288/K389/288389255.PDF>.

- *Wildfire Mitigation Plans (WMPs)*: Pursuant to SB 901 (Dodd, 2018) and AB 1054 (Holden, 2019), Energy Safety reviews utilities' three-year Wildfire Mitigation Plans and annual Updates, which outline their proposed activities to prevent and reduce impacts from utility-related ignitions.
- *Independent Evaluators*: Independent, third-party evaluators must assess compliance with annual WMPs; validate quality assurance/control programs in place for WMP compliance; and determine if the utility failed to fund any activities within their WMPs, pursuant to PU Code 8386.3(c)(2).
- *Root Cause Analysis Consultants*: In D.20-05-019, the Commission required an independent root cause analysis (RCA) consultant to conduct RCAs for specific 2017 and 2018 wildfires that involved PG&E facilities. The RCA consultant will analyze the factors that contributed to wildfire ignitions and make recommendations of systemic, programmatic, management, and structural matters that should be addressed to mitigate the risk of similarly caused fires in the future.
- *Safety Evaluators*: In D.20-05-019, as part of the 2017-2018 Wildfire Settlement Agreement, the Commission directed PG&E to retain independent consultant(s) to perform independent wildfire safety audits and reviews their policies and procedures, practices, and compliance with shareholder-funded System Enhancement Initiatives and to assess financial data related to PG&E's Wildfire Safety Plans over a three-year period.
- *Locate and Mark System Enhancement Initiatives*: In D.20-02-036 (approving the Locate and Mark settlement), the Commission required PG&E to complete 28 System Enhancement Initiatives including retaining three independent consultants to conduct a compliance and ethics corrective action audit, locate and mark compliance and timeliness audit, and a locate and mark field compliance audit.²¹
- *Oversight of Public Safety Power Shutoffs*: In the Phase 1 (D.19-05-042) and Phase 2 (D.20-05-051) Decisions of the Public Safety Power Shutoff (PSPS) Rulemaking (R.18-12-005), the Commission issued requirements for electric investor-owned utilities to mitigate the impacts of PSPS on customers and communities and to protect public safety. I.19-11-013 and the Phase 3 Decision for R.18-12-005 (D.21-06-034) broadened existing guidelines to include pre-and post-season reporting and identification of critical facilities and infrastructures.²²

Where applicable, this Staff Report notes how SPD will coordinate with the initiatives described above to track specific NorthStar recommendations and to ensure that this work complements but does not duplicate other safety oversight efforts.

C. SPD'S PLANNED TRACKING OF SELECTED RECOMMENDATIONS

This section describes planned data requests and monitoring of recommendations that could have a tangible impact on safety outcomes, were marked as incomplete or not implemented

²¹ See D.20-02-036 Presiding Officer's Decision:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M327/K660/327660032.PDF>.

²² Documents related to R.18-12-005 are available within the proceeding docket:

https://apps.cpuc.ca.gov/apex/?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R1812005. D.02-06-034 is available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K955/389955672.PDF>.

within NorthStar's 2021 Final Update Report, or are not being monitored or tracked through other CPUC oversight efforts, as outlined in Section A.

SPD will continue tracking each recommendation described in this section as follows:

1. PG&E shall file a Tier 2 Advice Letter that includes the following information for each recommendation included in this Staff Report:
 - a. Responses to the data requests corresponding to the recommendation.
 - b. Responses to all of the requests listed under NorthStar Recommendation U-3. For reference, the requests from NorthStar Recommendation U-3 are:
 - i. Describe if the execution of the Safety Culture OII recommendation(s) and corresponding plan is still ongoing, citing specific processes, organizations, and or documents that serve as the basis for PG&E's conclusion.
 - ii. List any recent or planned organizational, personnel, or business priority changes that might impact the Safety OII recommendation(s) and corresponding plan execution. State whether the changes impacted the execution of the Safety OII Plan.
 - iii. If PG&E implemented a recommendation differently than NorthStar directed, please describe how PG&E still meets the intent of the recommendation.
 - iv. Provide certification that adherence to the Safety OII requirement(s) is ongoing and evidence of compliance is maintained.
2. In its review and disposition to the Advice Letter, SPD will determine if any recommendations can be closed out and marked as complete based on PG&E's responses to the data requests.
3. Thereafter, for NorthStar recommendations that SPD determines should still be monitored, PG&E shall continue to respond to the questions from recommendation U-3 through a semi-annual Tier 2 Advice Letter by the end of March and the end of September unless otherwise directed by the Commission.

Recommendations are listed within the chapters used by NorthStar in its Final Update Report. Where applicable, tracking activities are also grouped for certain recommendations, following the organization used by NorthStar in its Final Update Report and PG&E in its implementation plans.

Strategy and Governance

NorthStar Recommendations F-4 and III-3

F-4: Development of a comprehensive safety strategy, with associated timelines/ deliverables, resource requirements and budgets, personnel qualifications, clear delineation of roles and responsibilities; action plans, assignment of responsibility for initiatives, and associated metrics to assess effectiveness. This should be followed with the identification of necessary corporate and Line of Business (LOB) safety resource requirements and development of an appropriate organization structure.

III-3: Develop a comprehensive safety plan (by the end of 2017) that incorporates LOB and Corporate Safety activities to eliminate duplication, prevent gaps and appropriately prioritize

expenditures. The plan should address culture, employee health and wellness, contractor safety, employee safety and public safety. Solicit input from throughout the organization, particularly the field, in the development of the plan. The environmental function was removed [from] the Safety, Health & Environment organization. It should have its own plan. Elements of the [Safety and Health] plan should include:

- Clear definition of the problem
- An in-depth, data-driven evaluation of the current as-is state
- Definition of the to-be state (i.e., what does good look like)
- Roles and responsibilities of corporate safety vis-a-vis LOB personnel
- Tangible goals and objectives
- Staffing/resource requirements and personnel qualifications
- Clear assignment of responsibilities
- Realistic timeline
- Metrics to assess effectiveness
- Defined budget
- Action plans
- Communications and change management plan.

The plan should be updated annually for at least two years and then at least every three years thereafter, with quarterly/annual monitoring of progress relative to the plan. The comprehensive plan should include all safety plans and programs of the Company, except for specific asset-related safety plans (such as asset management plans, leak survey programs or vegetation management) that should continue to be the responsibility of the various LOBs. The plan should be approved by the NOS (Nuclear Operations and Safety), now the Safety and Nuclear Operations (SNO) Committee and the Boards, and endorsed and supported by executive management and the CPUC. The plan must be clearly communicated throughout the organization.

Related Initiatives

This recommendation may relate to the following recommendations from the 2021 Safety Culture Assessment Report for PG&E conducted by DEKRA on behalf of Energy Safety:

- Establish a governance structure to ensure effective implementation and tracking of the 2025 Workforce Safety Strategy.
- Execute the strategy with active leadership by senior executives to ensure implementation.²³

As such, SPD will work with Energy Safety to monitor continued implementation of the recommendations.

Data Requests for Ongoing Monitoring by SPD

- Provide current safety strategy and implementation status.
- Provide status of asset management systems/certifications.
- Provide status of the Health and Safety Management System (HSMS).

²³ See pg. 18 of DEKRA's 2021 Safety Culture Assessment Report for PG&E, issued by Energy Safety, available at <https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>.

- Provide an update on Electric Operations and Power Generation's plans to adopt process safety and safety culture standards.

NorthStar Recommendation U-6

U-6. Increase CSO [Chief Safety Officer] oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.

Related Initiatives

- On December 15, 2021, the Pacific Gas and Electric Company (PG&E) filed a [Petition](#) requesting modification of D.20-05-053 for consolidating the safety and risk functions into a single organization led by an individual who will hold the combined title of Chief Safety and Risk Officer (CSRO). D.20-05-053 requires that PG&E have a separate Chief Risk Officer (CRO) and Chief Safety Officer (CSO).²⁴ The Commission approved this request through D.22-08-035 issued on August 29, 2022.²⁵

Data Requests for Ongoing Monitoring by SPD

- Provide documentation to show how reporting to the CSO/CRO position, implementation of NorthStar's recommendation, and coordination of safety and risk activities have changed since the CSO/CRO roles were consolidated.

Organization

NorthStar Recommendations IV-1 and IV-5

IV-1: Appoint a Corporate Safety Officer who has both operations and professional safety experience.[...].

IV-5: Improve the safety credentials of personnel in PG&E's safety functions and organizations.

Related Initiatives

In August 2022, the Commission approved PG&E's [Petition for Modification](#) of D.20-05-053 requesting the ability to consolidate the CSO and CRO into one position (described above).

Data Requests for Ongoing Monitoring by SPD

- Provide proposed electric and gas utility operations and safety training curriculum for current and future CRO/CSO/CSROs.

²⁴ Petition of Pacific Gas and Electric Company (U39M) for Modification of D.20-05-053 found at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M431/K692/431692768.PDF>.

²⁵ D.22-08-035 is available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M496/K657/496657409.PDF>.

Field Operations

NorthStar Recommendations F-5 and V-1

F-5: Greater coordination among the LOBs and with Corporate Safety to increase consistency, improve efficiencies, minimize operational gaps, and facilitate sharing of best practices.

V-1: Improve processes used to evaluate and translate best practices and techniques from one LOB organizational unit to others. Focus LOB Field Safety Specialists (FSS) roles and responsibilities on integrating best practices among all LOBs, facilitating the implementation of corporate safety initiatives, and improving safety practices and awareness across all organizational units.

Related Initiatives

Implementation of this recommendation may be impacted by PG&E's [regional restructuring](#) through [A.20-06-011](#).²⁶

This recommendation may also relate to the following recommendation from the 2021 Safety Culture Assessment Report for PG&E conducted by DEKRA on behalf of Energy Safety:

- Leverage the new safety management system to improve the flow of information up, down, and across the organization[...].²⁷

As such, SPD will work with Energy Safety to monitor continued implementation of the recommendation.

Data Requests for Ongoing Monitoring by SPD

- Explain how the sharing of best practices and process improvements have changed as a result of regional restructuring and Lean management.

NorthStar Recommendation IV-6

IV-6: Simplify and clarify the roles and responsibilities of the Corporate FSS vis-à-vis the LOB FSS to eliminate duplication and align activities with the respective skill sets. Work with the LOBs to determine service levels and staffing requirements.

Related Initiatives

Implementation of this recommendation may be impacted by PG&E's [regional restructuring](#) through [A.20-06-011](#).

²⁶ See A.20-06-011, Application of Pacific Gas and Electric Company for Approval of Regionalization Proposal, at https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:A2006011. On June 24, 2022, the Commission issued D.22-06-028 Approving a Multi-Party Settlement Agreement in Part and a South San Joaquin Irrigation District Settlement Agreement in Totality. The multi-party settlement agreement proposes to approve PG&E's updated Regionalization Proposal, with additional conditions, to create regions for PG&E's operations designed to enhance PG&E's ability to meet its safety obligations.

²⁷ See pg. 19 of DEKRA's 2021 Safety Culture Assessment Report for PG&E, issued by Energy Safety, available at <https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>.

Data Requests for Ongoing Monitoring by SPD

- Describe any changes to FSS position job requirements, responsibilities, workforce and resource needs, and staffing levels resulting from regional restructuring.
- Conduct a formal quantitative assessment of the effectiveness of the FSS function (as measured by Days Away, Restricted, or Transferred (DART), Preventable Motor Vehicle Incidents (PMVIs), and other indicators) and report findings to SPD.

NorthStar Recommendations V-5 and IV-7

V-5: Increase the training requirements for LOB FSS. Existing Occupational Safety and Health Administration (OSHA) training is somewhat generic and not sufficiently related to PG&E's public and occupational hazards.

IV-7: Establish, and adhere to, minimum qualifications for Corporate and LOB FSS. Establish training requirements for LOB FSS to ensure the specialists are up to date on current methods and procedures and have a working knowledge of key regulatory requirements.

Related Initiatives

This recommendation may relate to the following recommendation from the 2021 Safety Culture Assessment Report for PG&E conducted by DEKRA on behalf of Energy Safety:

- Build leadership skills and ensure frontline supervisors are demonstrating those skills regularly in the field to improve the work environment for wildfire and personal safety.²⁸

As such, SPD will work with Energy Safety to monitor continued implementation of the recommendation.

Data Requests for Ongoing Monitoring by SPD

- Provide PG&E's LOB FSS training program to determine if it sufficiently encompasses PG&E's public and occupational hazards.
- Provide safety-related qualifications for all LOB FSS resources and whether PG&E adheres to these qualifications.

NorthStar Recommendation U-10 and U-14

U-10: Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.²⁹

U-14: Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized, as discussed in PG&E's January 8, 2018, Testimony (p. App 2A-4/Adobe p. 129/521).

²⁸ See pg. 17 of DEKRA's 2021 Safety Culture Assessment Report for PG&E, issued by Energy Safety, available at <https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>.

²⁹ NorthStar Update Report 3-29-2019, Page III-44.

Data Requests for Ongoing Monitoring by SPD

To implement this recommendation PG&E shall provide:

- Status of compliance with Corporate Procedure HR 2010-P01.
- Number, position, and location of any field-facing supervisors with a span of control exceeding 1:20 for [QQ YEAR] and PG&E's associated justification.
- Supervisor span of control and level of supervision present at each Serious Injury or Fatality (SIF) and SIF-Potential (SIF-P).
- The results of PG&E's 2020 study correlating safety incident rates and leader in the field time.

Budgeting and Spending

NorthStar Recommendations VI-2, VI-3, III-2, and III-4

VI-2: Develop business case support and a record of management approval for safety initiatives in accordance with PG&E's Project Approval Procedure.

VI-3: Develop a method for weighting the value of management-initiated safety programs comparable to the Risk Informed Budget Allocation (RIBA) but focused on management and training.

III-2: Reassess and stabilize the safety culture change initiatives. The rigor applied to the integrated planning process should be applied to safety culture. The overwhelming number of initiatives and constant shifting of priorities is detrimental to a stable, consistent safety culture.

III-4: Clearly define and articulate any new initiatives to improve safety culture. Perform cost-benefit analyses of these initiatives and identify performance measures. Corporate Safety recently produced an analysis of lost work days that might serve as a starting point for the thought process and analytics involved.

Related Initiatives

Mandatory reporting on risk spending in the Risk Spending Accountability Reports required by D.19-04-020. The efficacy of the risk reduction measures implemented by PG&E is currently indirectly evaluated by SPD's review of the Annual [Safety Performance Metrics Reports](#) required by D.19-04-020 and the bi-annual Safety and Operational Metrics reports required by D.21-11-009 associated with the [Enhanced Oversight and Enforcement Process](#).

Data Requests for Ongoing Monitoring by SPD

- Provide listing of new Environmental Health and Safety (EH&S) safety initiatives, anticipated budget, and associated business cases.

Compensation and Performance Management

NorthStar Recommendation VII-5

VII-5: Revisit all Short-Term Incentive Plan (STIP) metrics and targets in light of the enterprise-wide safety plan recommended by NorthStar. Set multi-year targets to drive performance. Include a contractor safety metric in the STIP. Following the development of the enterprise safety plan, PG&E should develop STIP and Business Performance Review (BPR) metrics that measure plan implementation/ adoption and the effectiveness of the various initiatives identified in the plan. PG&E should continue to monitor and report lagging OSHA metrics (i.e., DART, Lost Work Day [LWD], MVIs, fatalities) as part of the BPR process.

Related Initiatives

Pursuant D.20-05-053, PG&E is required to report annual executive compensation awards through the Tier 1 Advice Letter filing process and to address how such awards comply with certain requirements of D.20-05-053.

PG&E also submits information on executive compensation through Safety Performance Metrics (SPMs) and Safety and Operational Metrics (SOMs).

Additionally, PG&E must obtain approval of its Executive Compensation Structure from Energy Safety to ensure that its compensation structure incentivizes safety, pursuant to Public Utilities Code § 8389(e)(4). SPD will work with Energy Safety to monitor continued implementation of recommendations that relate to Energy Safety's reporting.

Data Requests for Ongoing Monitoring by SPD

- Provide comparison of STIP and Long-Term Incentive Plan (LTIP) metrics and targets, operating review performance metrics, and PG&E's strategic plan to assure alignment.

NorthStar Recommendation VII-7

VII-7: Improve the internal sharing of best practices. Increase the level of involvement by different groups and employee levels. As an example, NorthStar performed a management audit of National Grid Gas' New York operations a few years ago for the New York Public Service Commission. The utility had a fairly robust process improvement program. NorthStar's report describing the process is available on the New York State Department of Public Service's website.

Related Initiatives

This recommendation may relate to the following recommendation from the 2021 Safety Culture Assessment Report for PG&E conducted by DEKRA on behalf of Energy Safety:

- Leverage the new safety management system to improve the flow of information up, down, and across the organization [...].³⁰

³⁰ See pg. 19 of DEKRA's 2021 Safety Culture Assessment Report for PG&E, issued by Energy Safety, available at <https://energysafety.ca.gov/wp-content/uploads/2021-sca-report-pge.pdf>.

As such, SPD will work with Energy Safety to monitor continued implementation of this recommendation.

Data Requests for Ongoing Monitoring by SPD

- Describe how sharing of best practices has changed with the deployment of Lean throughout the organization (not just within Enterprise Health and Safety). Provide metrics PG&E is using to measure the efficacy of Lean in sharing information and best practices.
- Provide a summary of the number and content of lessons learned reports and evidence of appropriate internal distribution.

Training

NorthStar Recommendations VIII-3 and U-17

- VIII-3: Complete the second 360-Degree Survey assessment for the Safety Leadership Development program participants and compare to the first assessment results to determine the effectiveness of the training and identify any gaps to be addressed.
- U-17: On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.

Data Requests for Ongoing Monitoring by SPD

- Provide a status update on the redesign of the SLD training and supervisor coaching that PG&E plans to implement in 2023. Include a description of any pilot programs implemented in Q4 2021 or early 2022 and their preliminary results, if available.

Safety Reporting/Corrective Action Program

NorthStar Recommendations X-8 and X-9

- X-8: Develop a single, consistent enterprise causal evaluation standard combining Utility Standard: SAFE-1004S (Serious Investigation Standard) and the Enterprise Causal Evaluation Standard (Utility Standard: GOV-6102S) [referred to as the Kern Standard]. Incorporate the following improvements:
- Determine whether Root Cause Evaluations (RCEs) should be required for: 1) an injury involving inpatient hospitalization for a period in excess of 24 hours for other than medical observation; and, 2) a loss of any part of the body (including eye), or any serious degree of permanent disfigurement (includes tissue damage without loss of bone).
 - Require documentation of the rationale for the selection of the Causal Evaluation (CE) type for all incidents, including near hits.
 - Require assignment of responsibility for ensuring all corrective actions are thorough, appropriate, have been completed, and have been appropriately communicated.
 - Require assignment of responsibility for ensuring that the effectiveness evaluation has been completed, is thorough, and any findings have been effectively addressed.

- Include a process flow/timeline that extends to the completion of the effectiveness evaluation, similar to that included in Utility Standard: SAFE-1004S Publication Date: 05/31/2015, Rev: [1].
- Provide a summary to all employees for the cause and corrective actions taken/to be taken once an incident investigation is complete (Apparent Cause Evaluation [ACE]/RCE). All PG&E employees are notified via email within 24 hours of the incident providing a brief summary of the incident. There is no such requirement for closure. NorthStar's review of safety-related communications to all employees evidenced the initial notification and the lack of any commensurate notification upon completion of the investigation.

X-9: Compare all LOB CE Standards to ensure the processes are consistent and all required elements are defined. As an example, the Power Generation Procedure includes a discussion of the Work Group Evaluation (WGE) process. Electric T&D and Gas Operations procedures do not. Gas Operations procedures do not include an RCE process timeline and appear to group RCE and ACE. The RCE communications plan for all procedures should include the communications process for follow-up on the Effectiveness Review Plan. Establish guidelines for communication of the corrective actions and the effectiveness reviews, as these are currently tracked separately by LOB.

Data Requests for Ongoing Monitoring by SPD

- Provide redline versions of the 2021 guidance documents for the Enterprise Cause Evaluation Standard and the Cause Evaluation Procedure or provide a summary of changes from the prior versions.

Contractor Safety

NorthStar Recommendation XI-1

XI-1: Corporate Contractor Safety should select the projects for review rather than the LOBs and conduct surprise field visits to assess contractor safety practices.

Data Requests for Ongoing Monitoring by SPD

- Provide the targeted and actual number for both announced and unannounced contractor field safety observations by LOB. Explain how these targets are determined for each LOB.
- With reference to the Contractor Safety Assessment Process, provide: 1) the LOB compliance assessment targets assigned to each Contractor Safety Assessor, 2) the projects selected for review by each Assessor and the basis for their selection, 3) all documentation showing that these field visits were scheduled and completed, including assessment results and any follow-up actions that were to be taken by the contractor or by PG&E.

NorthStar Recommendation XI-4

XI-4: Facilitate the sharing of best practices and lessons learned regarding the LOBs' implementation of the Contractor Safety Standard, addressing both organizational and procedural issues, including:

- Roles of safety specialists, inspectors and work supervisors with respect to Contractor Safety (See discussion of Recommendation XI-5)
- Benefits of a separate contractor safety group
- Contractor safety training for safety specialists and inspectors
- Frequency of field observations (See discussion of Recommendation XI-5)
- Field observation data and trend analyses.

Following the determination of best practices:

- Each LOB should update its Contractor Safety procedures to reflect its current organization, clarify responsibilities and reflect best practices. (See discussion of Recommendation XI-5.)
- Corporate Contractor Safety and LOB personnel with contractor safety experience should develop or revise contractor safety training for safety specialists and inspectors.
- Corporate Contractor Safety, or a LOB contractor safety representative, should work with appropriate PG&E personnel to update the Guardian observation tool to provide a useful mechanism to observe trends and track contractor safety performance.

Data Requests for Ongoing Monitoring by SPD

- Provide PG&E's new Contractor Safety Standard and a summary of changes from the previous Standard.
- Provide the results of a trend analysis of contractor safety field observations.
- Provide a Contractor Safety Program Field Observation Summary Report.
- Provide the results of the Contractor Observation program.

PMO Recommendations

NorthStar Recommendation U-3

U-3: Develop processes to ensure the sustainability of the implementation of NorthStar's recommendations.

Data Requests for Ongoing Monitoring by SPD

- For the recommendations included within this Staff Report, continue the sustainability certification process and report results biannually to SPD. Include the following information:
 - (a) Describe if execution of the Safety OII recommendation(s) and corresponding plan is still ongoing, citing specific processes, organizations, and or documents that serve as the basis for PG&E's conclusion.
 - (b) List any recent or planned organizational, personnel, or business priority changes that might impact the Safety OII recommendation(s) and corresponding plan execution. State whether the changes impacted the execution of the Safety OII Plan.
 - (c) If PG&E implemented a recommendation differently than NorthStar directed, please describe how PG&E still meets the intent of the recommendation.

- (d) Provide certification that adherence to the Safety OII requirement(s) is ongoing and evidence of compliance is maintained.
- Require PG&E Internal Audit to audit the sustainability certifications, including the maintenance of evidence of compliance, and provide results to SPD.

NorthStar Recommendation U-4

U-4: In addition to the status of the implementation of NorthStar's recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.

Data Requests for Ongoing Monitoring by SPD

- Report to the Commission on any significant changes that might have a significant impact on safety initiatives, reporting, or outcomes.

END ATTACHMENT B